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ABSTRACT

This report details the development of a student outcomes assessment of general education by faculty members at Coconino Community College (CCC) (Arizona). This assessment project consisted of three major components: (1) The General Education Assessment Pilot Project (Faculty members dedicated a semester to measuring student achievement of course outcomes and explored cost-effective and meaningful methods for reporting and documenting student academic achievement--the primary focus was to look for commonality in course-level assessment of student outcomes); (2) Writing Student Outcomes for the General Education Core Curriculum, wherein a group of faculty and administrators worked carefully to link student outcomes to the college mission, purpose statement, and general education values and criteria; and (3) The Teaching and Learning Conference, for which a two-day conference was organized to provide professional development opportunities to faculty and staff. The conference included work sessions focused on assessment techniques and writing outcomes, as well as other training opportunities for improving teaching and learning. Information about these three components of the assessment project, as well as a compilation of the results of four semesters of general education assessment (fall 1999 to spring 2001), are reported in chronological order in this report. (Includes 11 addendum exhibits.) (KP)

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## A Faculty Report on:

# ASSESSMENT OF GENERAL EDUCATION 2000-2001

FL020059

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A Faculty Report on:

# ASSESSMENT OF GENERAL EDUCATION AT COCONINO COMMUNITY COLLEGE

2000-2001

Submitted by Barbara Eickmeyer
Assessment Project Leader
May 2, 2001

## PURPOSE AND OVERVIEW OF THE PROJECT

In the spring semester of 2000, the Vice President for Academic Affairs approved the continuation of the General Education Assessment proposal made by full-time faculty member, Barbara Eickmeyer. The Self Study steering committee had endorsed the proposal in December, 1999, and identified it as a "high priority" for the institution. Financial support was allocated from the budget for the Principal Committee for Institutional Effectiveness (PIE). Goals for the proposal included:

The General Education Assessment Pilot Project. Full-time and associate faculty would dedicate one more semester to measuring student achievement of course outcomes and exploring cost-effective and meaningful methods for reporting and documenting student academic achievement at Coconino Community College (CCC). The primary focus of this final semester was to look for commonality in course-level assessment of student outcomes. The study would focus on assessment tools as well as reporting student achievement of outcomes.

Writing Student Outcomes for the General Education Core Curriculum. The assessment project leader (Eickmeyer) would facilitate completion of the student outcomes for General Education completers. The process would be complete by end of fall semester and a curriculum revision would take place in the spring 2001 semester.

Raising Awareness of Assessment of Student Academic Achievement and Professional Development / Training of Faculty. It had become evident throughout the 1999-2000 phase of this project that a strong need existed for faculty training in assessment. An innovative and collaborative effort between the assessment project leader and Jim Rhodes, Director for the Training and Development Center, resulted in a proposal for CCC's first (annual) *Teaching and Learning Conference*. The conference would serve as a conduit for assessment training workshops for faculty and staff, as well as a platform for implementation of the Title III Grant theme to "train the trainer." The conference would be held in August, 2000.

A final meeting was convened with the Vice President for Academic Affairs and the three faculty coordinators for the General Education assessment project in May, 2000. His recommendations for priority in the 2000-2001 academic year included: finalizing the General Education Student Outcomes, determining appropriate measurement tools, and writing outcomes for programs other than General Education.

These activities are reported in chronological order and reflect the results from assessment efforts and activities in the *Teaching and Learning Conference*, the assessment pilot project, the writing of the General Education Student Outcomes and a compilation of four semesters in assessment (fall 1999 to spring 2001).

**WHAT WE DID SUMMER 2000**

Pilot project continued. A small group of associate faculty completed outcomes assessment reporting on their general education courses. These results can be found in the Addendum.

Writing General Education Student Outcomes. During the spring 2000 semester, a group of 15 faculty and 3 administrators had worked carefully to link student outcomes to the college mission, purpose statement, and general education values and criteria. At the final College Instructional Team (faculty) meeting in April, 2000, the faculty selected representatives to continue this important process during the summer. Seven full-time faculty met in early August to continue the refining process on the General Education Student Outcomes. The results were disseminated to faculty at the beginning of the fall semester.

*Teaching and Learning Conference.* A collaborative effort among the college President, the Public Relations Office, the Coordinator of Professional Development (Title III Grant), and the Assessment Project Leader resulted in the college's first annual *Teaching and Learning Conference*. This was a two-day conference prior to the start of the semester, dedicated to providing professional development opportunities to faculty and staff. There were about twenty work sessions on assessment techniques and writing outcomes, as well as other training opportunities for improving teaching and learning. Participants deemed the conference a success and expressed their appreciation and satisfaction in a post-conference survey. Immediately following the *Teaching and Learning Conference*, the Coordinator of Professional Development and the Assessment Project Leader suggested that some of the work sessions from the conference could be repeated during the academic year as a method for providing training opportunities for faculty and staff. The planning committee decided to host a second conference in August 2001.

**WHAT WE DID - FALL 2000**

Pilot project continued for final semester. This time the primary focus was on assessment measures. Nine associate and six full-time faculty participated in the project. Once again, the project leader and two assistants received a combined total of 13 hours release time, while associate faculty were compensated with a stipend at the end of the semester. Other full-time faculty who participated in the project did not receive additional compensation nor release time; however, they reported positive satisfaction from participating in the project. Since the data collection of student outcomes was in place and reporting was going smoothly, this final semester was dedicated to identify and evaluate the instruments used by faculty in assessing student achievement of outcomes. At the first meeting of the pilot group, the project leaders presented a new assessment form and explained how it would be used in the study (see Tool Survey form in Addendum). The associate faculty who were participating for a second or third time commented that the process seemed more streamlined and easier to do. The participants met three times during the semester and exchanged measuring tool ideas.

An unanticipated result of the pilot project was that as the instructors from various disciplines discussed how they were assessing student outcomes, new ideas for using common tools were brought to the table. For example, an economics instructor collaborated with a geography instructor in an outcomes-linked activity. Students in the geography class received critical information about cost accounting in order to create their capstone project (a pre-feasability study) for the semester. Students in the economics class also received information about writing a pre-feasability study using the skills they acquired in their class. The instructors collaborated in setting up computer software, web links, lecture exchanges, and similar class activities so that students would benefit from both arenas. In one afternoon of discussing assessment tools, eleven faculty reported that they were "energized and inspired to continue assessing outcomes because the benefits to students were so great."

General Education Student Outcomes. The results of the summer work session on General Education Student Outcomes were distributed to all faculty for input in early September. Twelve full-time faculty, two associate faculty, one staff member, and a division chair participated in two work sessions held in November. This group identified five outcomes areas: communication skills, thinking skills, diversity and global perspective, aesthetic perspective, and ethical and civil values. Within each area, statements of expected student outcomes were written to reflect the college's General Education Core Curriculum.

The General Education student outcomes were finalized by the group during the fall 2000 semester and approved by the CIT in February 2001 (see Addendum).

**WHAT WE DID SPRING 2001**

Tool Survey results. Paul Holbrook compiled the data gathered from the Tool Survey in the fall 2000 semester of the General Education pilot project. This initial report provided valuable information about how instructor perceptions of assessment measures play a role in outcomes assessment. For example, there were inconsistencies in the reporting of test types. Instructors recorded the use of a "test" and were not specific about the type of test used. This made it difficult to determine the effectiveness of an instrument as compared to another. Many recommendations for future reporting of assessment measures came as a result of the Tool Survey. Results of the Tool Survey are included in the Addendum.

Focus on General Education program review. Upon completion of the General Education student outcomes, the most immediate need was to review the curriculum and course outlines within the general education core curriculum. In anticipation of this process, faculty were asked to set aside a day for curriculum review after spring break. Fourteen full-time, three temporary full-time, four associate faculty, the curriculum coordinator, the advising coordinator and the Dean for the Page campus participated in the six-hour work session that was held on March 23, 2001. Participants reviewed each general education course in their discipline area and identified course outcomes and/or content that supported the General Education Student Outcomes. A complete report of the work session is included in the Addendum.

General Education Student Outcomes and Course matrix. The Assessment Project Leader created a matrix of courses and corresponding General Education Student Outcomes. This chart contains a listing of the General Education Student Outcomes and all the courses in the general education core curriculum and their corresponding outcomes and/or content (see Addendum).

Explored standardized measures for assessing student achievement. As the college faculty finalized the General Education Student Outcomes, it was necessary to investigate commercial tools that might work for standardized assessment purposes. The Project Leader compiled a list of standardized assessment instruments available on the market that could be considered for use by the college. This review also contained basic information regarding cost, impact, and usefulness of the selected instruments under review (see Addendum).

Useful data and experience. The experience gained from the Pilot Project and process of writing the General Education Student Outcomes was vital to other disciplines as area coordinators began to approach the assessment of degrees and certificates.

## SUMMARY

This report represents a combined total of more than 1400 hours of dedicated work by college faculty and personnel. The successful completion of the original proposal (fall 1999) for assessment of student academic achievement in General Education could not have been possible without the direct support of the college leaders. The college President and Vice President provided the most critical ingredient in supporting this effort through motivational directives for faculty participation in the process. They demonstrated their commitment to this process by allocating release time and financial resources from hard money budgets. The Dean for the Page Campus provided substantial support from his experience in assessment and supported the effort with regular input. This effort was equally dependent on the generous collaboration and contribution of many full-time and associate faculty who were committed to the idea and worked tirelessly to participate in the process. At times it was difficult to approach them with yet another "thing to do," and yet many were always willing to help out. Paul Holbrook's expertise in using databases and reporting methods was a key component of the project. Above all, this project would not have been steered in the right direction without the extraordinary guidance of Barbara Cress, who demonstrated her measureless commitment to students and the improvement of learning by sharing her knowledge of effective and ethical assessment practices.

## CONSIDERATIONS FOR THE FUTURE

Commitment to permanent leadership of student outcomes assessment. In its Addendum to the Handbook of Accreditation, Second Edition, the North Central Association of Colleges and Schools Commission on Institutions of Higher Education (NCA) recommends that an assessment program is making progress in implementation when it "is provided with a Coordinator/Director who reports directly to the CAO" (p. 11, Level Two). Further, an assessment program in the "Maturing Stages of Continuous Improvement" (p. 11, Level Three) demonstrates that "all the structural characteristics described in Level Two are continued, sustained, and where appropriate, enhanced." In anticipation of the NCA visit to Coconino Community College in April, 2002, it is critical that a specific leadership position be established for the coordination of assessment of student academic achievement. It is not

sufficient to delegate the responsibility for assessment to the departmental level of the college. Unless an individual director is responsible for coordinating, collecting, and disseminating assessment of student outcomes data, it is likely that NCA will scrutinize the college's assessment plan with pessimism. This project was the direct result of a three-semester period and was a temporary solution to a permanent need. It was necessary to grant faculty release time in order to conduct the project appropriately, and the results prove the effectiveness of that effort.

Let the public know. Foremost on the list is the implementation of the General Education Student Outcomes into the "woodwork" of the college publications and academic practices. Although this process began during the spring 2001 semester, it is necessary to publicize to students and the college community what to expect from our General Education program.

Find tools. The most important step in the process will be to implement a standardized method for assessing student outcomes. We are committed to adopting the instrument(s) that will best measure the student outcomes identified in our degrees, certificates, and General Education program. This may or may not include a commercial tool. The college faculty will need to explore and evaluate these tools and make a recommendation to college leaders for budgetary commitments. We recommend a pilot for standardized measurement tools in the 2001-2002 academic year, with consideration for multiple measures and capstone courses.

Make a way. It will be necessary to implement a standardized method for assessing students at their entry and exit to the college. It is possible this could be done using commercial instruments that have been used successfully at other colleges of similar demographics and size. Careful consideration needs to be given to the college-wide impact of such a program. The "One-Stop Shop" idea fits in nicely with an entry/exit assessment program, and the data can be used to improve services across programs and curriculum.

Make it pay. The benefits of assessment done right are innumerable. However, the consequences of a fragmented or rushed plan are definite and counterproductive. It is of utmost importance that the college continue to dedicate time and resources to the process of implementing a reasonable and effective student outcomes assessment plan.

Faculty involvement and leadership have driven assessment of student outcomes. We should be proud of the grass-roots efforts that have taken place. At the same time, we should acknowledge the danger of losing the momentum that faculty created. Much has been accomplished, much remains to be done.

## Participants on the
## Assessment of General Education

### Pilot Project 1999-2000

**Full-time Faculty**

Barbara Cress
Barbara Eickmeyer
Paul Holbrook
Marty Lara
Michelle Metcalf**
Vennie White

**Associate Faculty**

Gerald Bacon
Michael Casey
Frank Chavez
Dan Crawley
Letty David
Stephen Franklin
Holly Franquet
Kate Harkins
Dan Lara
Tricia Ornela
Judy Plescia
NormaLee Roudabush
Jean Rukkila
Judy Stiers

**Administrative Staff**

Dan Fishco
Greg Kerr
Stephen Hill

### Writing Outcomes for Gen Ed

**Full-time Faculty**

Monica Baker*
Jerry Baker*
Bryan Bates
Candice Corrigan
Barbara Cress
Mike Devoley**
Barbara Eickmeyer
Ruth Foster
Kate Kozak
Paul Holbrook
Maxie Inigo
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Marty Lara
Alan Petersen
Jeff Rhode
Jim Rhodes
David Rudakewich
Kirstin Squint**
Vennie White
Kathy Wigal

**Associate Faculty**

Chris Black
Lenny Born
Natalie Davenport
Kate Harkins
Ana Novak-Goodman
Art Wilson

**Administrative or Support Staff**

Dan Fishco
Lloyd Hammonds
Stephen Hill
Nathaniel Nez
Suzan Simmons
Pete Yanka

*Division Chair
** Temporary full-time faculty

A Faculty Report on:

# ASSESSMENT OF GENERAL EDUCATION AT COCONINO COMMUNITY COLLEGE

2000-2001

# ADDENDUM EXHIBITS

Submitted by Barbara Eickmeyer
Assessment Project Leader
May 2, 2001

## ADDENDUM EXHIBITS

General Education Pilot Project

A. Results for Fall1999, Spring, Summer and Fall 2000
B. Outcomes reporting form
C. Tool Survey form
D. Notes from Pilot Project meeting (11/2/2000)
E. Results from Tool Survey for Fall 2000

Teaching and Learning Conference

F. Brochure and PresentationSchedule

General Education Student Outcomes

G. General Education Student Outcomes as approved by College Faculty, February, 2001
H. March 23, 2001 work session report
H-1 Curriculum checklist, General Education Student Outcomes
I. Matrix of General Education Core Curriculum and Student Outcomes
J. Assessment Tools for Consideration
K. Assessment of General Education Report 1999-2000

# General Education Pilot Project

## A. Results for Fall 1999 Spring, Summer and Fall 2000

## Fall 1999 General Education Pilot Project Results

| Course / Outcome | Number of students currently enrolled | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **BIO 100** | | | | | |
| Appraise the relationship between humans and their environment | 22 | 22 | 7 | 19 | 86% |
| Participate in laboratory work, utilizing scientific methods and equipment | 23 | 23 | 2, 9 | 17 | 74% |
| Solve problems in and explain processes involved in genetics | 20 | 20 | 12 | 17 | 85% |
| **CIS 120** | | | | | |
| Describe computer hardware, software and information processing and application to business | 20 | 20 | 3, 4, 7 | 14 | 72% |
| Describe current and future uses of computers | 21 | 21 | 3 | 14 | 67% |
| Effectively operate a microcomputer system and various peripheral devices | 21 | 20 | 2 | 20 | 100% |
| Correctly use computer-related vocabulary | 19 | 19 | 5 | 14 | 74% |
| Describe the limitations of computer systems and their applications in various environments | 19 | 19 | 6 | 18 | 95% |
| Discuss the impact of telecommunications and networks to the way computers are used | 20 | 20 | 5 | 16 | 80% |
| Identify issues related to security, ethics, and privacy whan using a computer | 19 | 19 | 8 | 16 | 84% |
| Produce computer-generated projects through the use of word-processing, spreadsheet, database, presentation, e-mail, and web browsing software | 19 | 19 | 9 | 19 | 100% |
| **ECN 204** | | | | | |
| Define economic vocabulary | 15 | 15 | 4, 8, 15 | 13 | 87% |
| Explain and summarize how federal reserve system works | 15 | 15 | 15 | 15 | 100% |
| Complete increasingly difficult writing assignments | 15 | 15 | 4, 8, 15 | 15 | 100% |
| **ECN 205 fast track** | | | | | |
| Define economic vocabulary | 22 | 22 | 3 | 20 | 91% |
| Examine and explain the structure of the American economic system | 22 | 22 | 3 | 11 | 50% |
| Analyze and explain the demand cycle and consumer choice and interpret graphical representation | 22 | 22 | 3 | 18 | 82% |
| Summarize market influences and theories | 22 | 22 | 3 | 18 | 82% |
| **HUM 241** | | | | | |
| Develop skills in analyzing and synthesizing information | | 13 | 1, 7, 15 | 0 | 0% |
| Encourage awareness of faulty reasoning | | 9 | 1, 7, 15 | 9 | 100% |
| Foster flexible and creative thinking | | 8 | 1, 7, 15 | 8 | 100% |



Created by Paul Holbrook

## Fall 1999 General Education Pilot Project Results

| Course / Outcome | Number of students currently enrolled | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| | | | | | |
| **MAT 151** | | | | | |
| Graph equations and functions using various methods including technology | 24 | 19 | 16 | 15 | 79% |
| Solve linear, quadratic, rational, absolute value, polynomial, and radical equations | 24 | 19 | 16 | 15 | 79% |
| Simplify expressions involving complex numbers | 24 | 19 | 16 | 15 | 79% |
| **PHI 101** | | | | | |
| recognition of major ancient Greek philosophers and their ideas | 41 | 41 | 5 | 41 | 100% |
| a basic understanding of principles of argument, an ability to summarize philosophical argument, and formulate their own argument | 41 | 31 | 12 | 25 | 81% |
| **SOC 101** | | | | | |
| Concepts, Theories, and research methods in Sociology | 30 | 30 | 1 | 5 | 17% |
| Definitions and classifications of individuals and groups | 30 | 19 | 3 | 15 | 79% |
| Concepts and theories of stratification | 23 | 19 | 7 | 14 | 74% |
| Social institutions | 23 | 19 | 10 | 18 | 95% |
| **SPA 101 fast track** | | | | | |
| interpret written Spanish that contains learned vocabulary | 15 | 14 | 3 | 13 | 93% |
| | 12 | 12 | 5 | 12 | 100% |
| derive meaning from written material where context and/or extralinguistic background knowledge are supportive | 15 | 14 | 3 | 11 | 79% |
| | 12 | 12 | 5 | 12 | 100% |
| initiate and respond verbally to simple statements, ask and answer questions. and participate in simple conversations | 13 | 12 | 4 | 12 | 100% |
| | 12 | 12 | 7 | 11 | 92% |
| demonstrate comprehension of words and phrases from simple spoken questions, statements, high frequency commands, and courtesy formulae | 12 | 12 | 7 | 11 | 92% |
| | | | | | |
| **Totals** | 707 | 689 | | 556 | 81% |
| | | | | | |
| Notes: ENG 102 data non quantitative | | | | | |

## Spring 2000 General Education Pilot Project Results

| Course / Outcome | Assessment Method | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **ACC 101** | | | | | |
| Prepare and explain the Balance Sheet, Income Statement, and Statement of Retained Earnings | Observation | 19 | 4 | 17 | 89% |
| | Problems | 19 | 4 | 17 | 89% |
| | Instructor test | 19 | 4 | 16 | 84% |
| Explain the Accounting Equation and the interaction of its elements | Observation | 19 | 7 | 18 | 95% |
| | Problems | 19 | 7 | 15 | 79% |
| | Instructor test | 19 | 7 | 12 | 63% |
| Calculate and apply the necessary tools and techniques for ratio analysis related to statement analysis | Observation | 19 | 10 | 17 | 89% |
| | Problems | 19 | 10 | 14 | 74% |
| | Instructor test | 19 | 10 | 12 | 63% |
| **ANT 110** | | | | | |
| What is Archaeology | Instructor test | 16 | 3 | 11 | 69% |
| | Instructor test | 17 | 7 | 17 | 100% |
| Develop techniques for analysis of cultural remains | Instructor test | 14 | | 12 | 86% |
| | Instructor test | 7 | | 7 | 100% |
| | Instructor test | 6 | | 6 | 100% |
| | Instructor test | 15 | | 15 | 100% |
| Understand cultural theory as it applies to interpreting prehistoric cultural | Instructor test | 13 | | 10 | 77% |
| **ECN 205** | | | | | |
| Define economic vocabulary | Instructor test | 25 | | 24 | 96% |
| Summarize market influences and theories | Instructor test | 18 | | 16 | 89% |
| | Instructor test | 22 | | 22 | 100% |
| **ENG 102** | | | | | |
| Synthesize ideas from readings with their own ideas and research | Essay | 13 | 5 | 12 | 92% |
| | Essay | 13 | 13 | 12 | 92% |
| Follow the writing process | Essay | 13 | 3 | 13 | 100% |
| | Essay | 12 | 9 | 10 | 83% |
| Research and document sources; integrate source material skillfully | Essay | 13 | 15 | 9 | 69% |
| **GEO 131 Sec 1 & 2** | | | | | |
| Identify, analyze and evaluate the theories and interpretations concerning physical geography and the forces at | Instructor test | 45 | 5 | 33 | 73% |
| | Instructor test | 47 | 10 | 39 | 83% |
| | Instructor test | 47 | 16 | 34 | 72% |
| Successfully complete laboratory exercise concerning physical geography through the application of the theories and concepts of physical geography and | Problems | 47 | 5 | 42 | 89% |
| | Matrix | 47 | 12 | 44 | 94% |
| | Simulation | 47 | 14 | 45 | 96% |
| Apply the theories and concepts of physical geography to local and global issues | Group activity | 47 | 3 | 45 | 96% |
| | Essay | 47 | 13 | 42 | 89% |
| | Debate | 47 | 15 | 42 | 89% |
| **HUM 241** | | | | | |
| Develop skills in analyzing and synthesizing information | Essay | 9 | 8-10 | 8 | 89% |
| | | 10 | 15 | 9 | 90% |
| Interpretation, and evaluation of evidence | Essay | 9 | 8-10 | 8 | 89% |
| | | 10 | 15 | 8 | 80% |
| Successful completion of the writing component | Essay | 14 | 8-10 | 14 | 100% |
| | | 14 | 15 | 14 | 100% |



Created by: Paul Holbrook
5/1/2001

## Spring 2000 General Education Pilot Project Results

| Course / Outcome | Assessment Method | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **HUM 242** | | | | | |
| Emphasize the gathering, interpretation, and evaluation of evidence | | 11 | 3 | 9 | 82% |
| | | 17 | 8 | 13 | 76% |
| | | 17 | 14 | 14 | 82% |
| Develop skills in analyzing and synthesizing information | | 11 | 3 | 6 | 55% |
| | | 17 | 8 | 12 | 71% |
| | | 17 | 14 | 10 | 59% |
| Successful completion of the writing component | | 17 | 14 | 12 | 71% |
| **MAT 121 / 151** | | | | | |
| Demonstrate graphing linear equations | Problems | 31 | 11 | 18 | 58% |
| Solve systems of equations graphically & quantitatively & check solutions | Problems | 31 | 11 | 16 | 52% |
| | Problems | 35 | 16 | 26 | 74% |
| Simplify / solve rational, and radical expression & equations | Problems | 35 | 16 | 21 | 60% |
| Develop an understanding of logarithmic operations | Problems | 35 | 16 | 23 | 66% |
| **PSY 101 SEC 3 & 4** | | | | | |
| Concepts, theories, and research methods | Instructor test | 51 | 4 | 29 | 57% |
| | oral presentations | 19 | 8 | 18 | 95% |
| | Essay | 50 | 13 | 47 | 94% |
| Emotions, motivation, memory and learning | Quiz | 51 | 11 | 43 | 84% |
| | oral presentations | 17 | 11 | 16 | 94% |
| | Instructor test | 51 | 12 | 39 | 76% |
| Abnormal personalities and therapies | Quiz | 50 | 15 | 39 | 78% |
| | oral presentations | 15 | 15 | 14 | 93% |
| | Instructor test | 49 | 16 | 30 | 61% |
| **SPA 102** | | | | | |
| Interpret written Spanish from texts that are linguistically non-complex | Pre/Post test | 20 | 1 | 12 | 60% |
| | Instructor test | 19 | 5 | 15 | 79% |
| | Instructor test | 16 | 16 | 16 | 100% |
| Initiate and respond verbally to uncomplicated, basic communicative tasks and social situations | Pre/Post test | 20 | 1 | 14 | 70% |
| | Oral examination | 20 | 3 | 19 | 95% |
| | Pre/Post test | 16 | 15 | 16 | 100% |
| Demonstrate comprehension of sentence-length statements or questions in a limited number of content | Pre/Post test | 20 | 1 | 19 | 95% |
| | Instructor test | 17 | 10 | 14 | 82% |
| | Oral examination | 16 | 15 | 14 | 88% |
| **SPA 201** | | | | | |
| Interpret simple connected text | Verbal response | 7 | 8-10 | 7 | 100% |
| | Verbal response | 7 | 8-10 | 6 | 86% |
| | Verbal response | 7 | 16 | 7 | 100% |
| | Verbal response | 7 | 16 | 7 | 100% |
| Demonstrate increased comprehension of conversational discourse on a number of topics | Instructor test | 7 | 16 | 7 | 100% |
| Initiate, sustain and close a general conversation utilizing learned grammatical strategies | Instructor test | 7 | 9 | 6 | 86% |
| | Instructor test | 7 | 16 | 7 | 100% |
| | Instructor test | 7 | 8-10 | 6 | 86% |
| **Totals** | | 1722 | | 1408 | 82% |
| | | | | | |
| **Comments** | | | | | |
| | | | | | |

Created by: Paul Holbrook
5/1/2001

# Spring 2000 General Education Pilot Project Results

Buddy system promoted accessing common outcomes across curriculum.

Outcomes for some courses need to rewritten. What the process for doing this?

Instructors began evaluating the tools they used for effectiveness.

Content of the evaluation instrument was being assessed for validity.

Group exercises were beneficial to students, but harder to track and record individual results.

Form is not specific enough about who is assessed the enrolled student or the student who takes the assessment.

The average score of different methods are detailed in the following table:

| | |
|---|---|
| Problems | 71% |
| Quiz | 81% |
| Pre/Post test | 81% |
| Instructor test | 84% |
| Debate | 89% |
| Essay | 90% |
| Observation | 91% |
| Oral examination | 91% |
| Matrix | 94% |
| oral presentations | 94% |
| Group activity | 96% |
| Simulation | 96% |
| Verbal response | 96% |

The average score of assessment by week are detailed in the following table. It should be noted that the material assessed would be progressively more difficult as the semester progresses.

| Period | Percent of students who achieved minimun |
|---|---|
| 11 | 72% |
| 1 | 75% |
| 14 | 77% |
| 10 | 78% |
| 4 | 80% |
| 8 | 81% |
| 3 | 83% |
| 16 | 83% |
| 5 | 83% |
| 7 | 84% |
| 9 | 85% |
| 12 | 85% |
| 15 | 87% |
| 13 | 92% |



Created by: Paul Holbrook
5/1/2001

# Summer 2000
# General Education Pilot Project Results

| Course / Outcome | Assessment Method | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **ACC 101** | | | | | |
| Prepare and explain the Balance Sheet, Income Statement, and Statement of Retained Earnings | Instructor Developed test | 29 | 1 | 27 | 93% |
| Explain the components of the annual report and its significance to the stockholder | Observation | 31 | 2 | 26 | 84% |
| Describe the methods of depreciation, identify the methods applicable to given situations | Oral Examination | 28 | 4 | 24 | 86% |
| **MAT 151** | | | | | |
| Define functions and relations | Standardized tests | 8 | 4 | 4 | 50% |
| | Group activity non-graded | 8 | 10 | 8 | 100% |
| | Standardized tests | 8 | 10 | 4 | 50% |
| Solve various systems of equations with several methods including matrices and determinants | Standardized tests | 8 | 8 | 7 | 88% |
| | Standardized tests | 8 | 10 | 7 | 88% |
| Solve linear, quadratic, rational absolute value, polynomial, and radical equations | Oral Examination | 8 | 5 | 8 | 100% |
| | Standardized tests | 8 | 6 | 3 | 38% |
| | Standardized tests | 8 | 10 | 4 | 50% |
| **PSY 105** | | | | | |
| Identify major ethical issues | Essay assignment | 13 | 3 | 9 | 69% |
| | Essay assignment | 11 | 7 | 9 | 82% |
| | Essay assignment | 11 | 10 | 11 | 100% |
| Critically evaluate their own views and those of representative thinkers. | Essay assignment | 13 | 3 | 7 | 54% |
| | Essay assignment | 11 | 7 | 5 | 45% |
| | Essay assignment | 11 | 10 | 8 | 73% |
| **SPA 201** | | | | | |
| Interpret simple connected text | Instructor Developed test | 4 | 4 | 1 | 25% |
| | | 4 | 5 | 3 | 75% |
| | | 4 | 5 | 4 | 100% |
| | | 4 | 5 | 3 | 75% |
| Demonstrate increased comprehension of conversational discourse on a number of topics | Instructor Developed test | 4 | 2 | 3 | 75% |
| | | 4 | 5 | 3 | 75% |
| Grammar | Instructor Developed test | 4 | 3 | 2 | 50% |
| | | 4 | 5 | 1 | 25% |
| | | 4 | 4 | 0 | 0% |
| | | 4 | 5 | 1 | 25% |
| **Totals** | | 258 | | 191 | 74% |
| | | | | | |
| **Comments** | | | | | |
| Low number of faculty participants | | | | | |
| | | | | | |
| | | | | | |

# Fall 2000 General Education Pilot Project Results

| Course / Outcome | Assessment Method | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **ACC 101 (not in Gen Ed core)** | | | | | |
| Prepare and explain the Balance Sheet, Income Statement, and Statement of Retained Earnings | Group activity non-graded | 15 | 8 | 14 | 93% |
| | Observation | 15 | 8 | 11 | 73% |
| | Pre/Post Test | 15 | 9 | 8 | 53% |
| **ANT 110** | | | | | |
| Techniques for analysis of cultural remains | Classroom Research | 6 | 7 | 6 | 100% |
| Develop techniques for analysis of cultural remains | Group activity non-graded | 6 | 8 | 6 | 100% |
| | Essay | 6 | 8 | 6 | 100% |
| | Simulation | 6 | 8 | 6 | |
| The necessity for understanding cultural theory as it applies to | Classroom Research | 6 | 10 | 6 | 100% |
| | Oral examination | 6 | 10 | 6 | 100% |
| Become acquainted with the historical development of archaeology, its methods and theory | Group activity non-graded | 6 | 10 | 6 | 100% |
| | Problems | 6 | 10 | 6 | 100% |
| **ENG 102** | | | | | |
| Read critically with attention to major literary approaches, such as but not limited to, reader-response, psychological/sociological, historical/biographical, cultural/gender, and formalist | Other - Oral | 11 | 7 | 11 | 100% |
| Explain and practice the principles of academic integrity throughout the research, writing, and revision | Journal | 9 | 5 | 9 | 100% |
| | Pre/Post Test | 9 | 16 | 7 | 78% |
| Follow the writing process: idea generating, organizing, drafting, revising, editing, proofreading | Peer Reviews | 10 | 4 | 9 | 90% |
| | Peer Reviews | 11 | 8 | 11 | 100% |
| | Peer Reviews | 9 | 12 | 7 | 78% |
| **GEO 131 Sec 1 & 2** | | | | | |
| Identify, analyze and evaluate the theories and interpretations concerning physical geography and | Instructor test | 36 | 5 | 24 | 67% |
| | Instructor test | 38 | 10 | 21 | 55% |
| | Instructor test | 38 | 16 | 25 | 66% |
| Successfully complete laboratory exercise concerning physical geography through the application of the theories and concepts of physical | Problems | 38 | 7 | 27 | 71% |
| | Matrix | 38 | 9 | 35 | 92% |
| | Simulation | 38 | 14 | 35 | 92% |
| Apply the theories and concepts of physical geography to local and global issues | Group activity | 38 | 2 | 33 | 87% |
| | Essay | 38 | 13 | 33 | 87% |
| | Debate | 38 | 15 | 36 | 95% |
| **CIS 120** | | | | | |
| Effectively operate a microcomputer | | 78 | | 78 | 100% |
| Produce computer-generated | | 78 | | 78 | 100% |

# Fall 2000 General Education Pilot Project Results

| Course / Outcome | Assessment Method | Number of students assessed | Period of assessment by semester week | Students who met the requirements | % of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **HUM 242** | | | | | |
| Prepare and explain the Balance Sheet, Income Statement, and Statement of Retained Earnings | Group activity | 15 | 8 | 13 | 87% |
| | Observation | 15 | 8 | 12 | 80% |
| | Pre/Post Test | 15 | 9 | 8 | 53% |
| **MAT 121** | | | | | |
| Demonstrate graphing linear equations | Instructor test | 16 | 8 | 8 | 50% |
| Solve systems of equations graphically & quantitatively & check solutions | Group activity | 17 | 10 | 17 | 100% |
| | Instructor test | 22 | 11 | 15 | 68% |
| | Instructor test | 22 | 16 | 19 | 86% |
| Perform basic operations on polynomials | Pre/Post Test | 15 | 7 | 15 | 100% |
| | Instructor test | 22 | 8 | 19 | 86% |
| | Instructor test | 22 | 16 | 18 | 82% |
| Understand and use methods for factoring polynomials | Pre/Post Test | 15 | 7 | 15 | 100% |
| | Instructor test | 22 | 8 | 17 | 77% |
| Develop an understanding of logarithmic operations | Instructor test | 22 | 16 | 15 | 68% |
| **PHI 101** | | | | | |
| Students will demonstrate knowledge of the broad history of philosophy and major divisions of the subject | Instructor test | 23 | 4 | 23 | 100% |
| | Instructor test | 23 | 9 | 22 | 96% |
| | Journal | 23 | 16 | 18 | 78% |
| Students will demonstrate recognition of major ancien Greek philosophers and the ideas associated with them. | Instructor test | 23 | 4 | 23 | 100% |
| | Journal | 23 | 14 | 18 | 78% |
| Students will demonstrate a basic understanding of principles of argument, an ability to summarize | Essay | 23 | 7 | 22 | 96% |
| | Essay | 24 | 14 | 23 | 96% |
| | Oral examination | 24 | 16 | 22 | 92% |
| **ENG 101** | | | | | |
| demonstrates sound logical development, careful interpretation and evaluation of sources, and appropriate documentation | Group activity non-graded | 17 | 2 | 17 | 100% |
| | Journal | 17 | 7 | 16 | 94% |
| | Observation | 17 | 12 | 17 | 100% |
| Revise writing for unity, coherence, sentence variety and clarity | Essay | 17 | 7 | 17 | 100% |
| | Essay | 17 | 10 | 16 | 94% |
| | Essay | 17 | 14 | 17 | 100% |
| Read peers' writing critically, accept critical judgments of others, and make appropriate changes in own | Peer conferencing | 17 | 7 | 17 | 100% |
| | Instructor conferencing | 17 | 13 | 17 | 100% |
| | Self evaluation | 17 | 16 | 16 | 94% |
| **SPA 201** | | | | | |
| Interpret written Spanish from texts that are linguistically non-complex | Verbal response | 13 | 11 | 10 | 77% |
| | Verbal response | 12 | 16 | 12 | 100% |
| | Verbal response | 12 | 16 | 7 | 58% |
| demonstrate increased comprehension of conversational discourse on a number of topics | Instructor test | 13 | 12 | 6 | 46% |
| | Instructor test | 12 | 14 | 5 | 42% |
| | Instructor test | 12 | 16 | 12 | 100% |
| | Instructor test | 12 | 16 | 4 | 33% |
| initiate, sustain and close a general conversation utilizing learned grammatical strategies | Oral examination | 12 | 16 | 4 | 33% |
| | Instructor test | 13 | 12 | 12 | 92% |
| | Instructor test | 12 | 16 | 4 | 33% |
| **Totals** | | 1350 | | 1148 | 85% |
| | | | | | |

Created by: Paul Holbrook

5/1/2001

# Fall 2000 General Education Pilot Project Results

| Comments | | | | | |
|---|---|---|---|---|---|
| Outcomes were confused with course content items on the outlines | | | | | |
| | | | | | |
| General observations for future investigation | | | | | |

The average score of different methods are detailed in the following table:

| Assessment Method | |
|---|---|
| Classroom Research | 100% |
| Instructor conferencing | 100% |
| Other - Oral | 100% |
| Peer conferencing | 100% |
| (blank) | 100% |
| Group activity non-graded | 98% |
| Essay | 96% |
| Debate | 95% |
| Self evaluation | 94% |
| Matrix | 92% |
| Simulation | 92% |
| Group activity | 91% |
| Peer Reviews | 89% |
| Journal | 88% |
| Problems | 86% |
| Observation | 84% |
| Verbal response | 78% |
| Pre/Post Test | 77% |
| Oral examination | 75% |
| Instructor test | 71% |

| Period | Percent of students who achieved minimun requirements |
|---|---|
| Period of assessment by semester week | |
| (blank) | 100% |
| 16 | 72% |
| 15 | 95% |
| 14 | 82% |
| 13 | 93% |
| 12 | 79% |
| 11 | 73% |
| 10 | 93% |
| 9 | 74% |
| 8 | 85% |
| 7 | 96% |
| 5 | 83% |
| 4 | 97% |
| 2 | 93% |

# General Education Pilot Project

## B. Outcomes Reporting Form

## Student Outcome Assessment Report Form (pilot project)

Course

Date

* = meets minimum

0 = does not meet minimum

| | | Outcome | | | Outcome | | | Outcome | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | WEEK NUMBER | | | | | | | | | |
| Student | Assessment method | | | | | | | | | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| 16 | | | | | | | | | | |
| 17 | | | | | | | | | | |
| 18 | | | | | | | | | | |
| 19 | | | | | | | | | | |
| 20 | | | | | | | | | | |
| 21 | | | | | | | | | | |
| 22 | | | | | | | | | | |
| 23 | | | | | | | | | | |
| 24 | | | | | | | | | | |
| TOTAL # ASSESSED | | | | | | | | | | |
| TOTAL # MET MINIMUM | | | | | | | | | | |
| TOTAL % MET MINIMUM | | | | | | | | | | |

| Outcome # | Outcome description |
|---|---|
| | method(s) used: |
| | method(s) used: |
| | method(s) used: |

Assessment method codes

CR --Classroom Research
ES --Essay / Writing assignment
EE --External Examiner
GA --Group activity non-graded
IT --Instructor Developed Test
JO --Journal
OB --Observation
OT --Other (please explain)
OE --Oral Examination
PE --Peer reviews
PA --Performance Appraisals
PP --Pre/Post test
PR --Problems
SI --Simulation
ST --Standardized Test

# General Education Pilot Project

## C. Tool Survey Form

***General Education Pilot Project – Fall 2000***
***Tool Survey***

Name_____Course_____Semester/year_____

| Assessment Method Codes (A.M.C.) | | |
|---|---|---|
| CR– Classroom research | ES – Essay/Writing Assignment | EE – External Examiner |
| GA – Group activity, non-graded | IT – Instructor Developed Test | JO – Journal |
| OB – Observation | OE – Oral Examination | PE – Peer reviews |
| PA – Performance Appraisals | PP – Pre/Post test | PR – Problems |
| SI – Simulation | ST – Standardized test | OT – Other |

**COURSE OUTCOME MEASURED:** _____

**METHOD USED FOR MEASURING THIS OUTCOME:**_____

**ASSESSMENT METHOD CODE** (see above chart): _____

Demand on your time: __ very little __ about right __ a lot

Do you suggest others use this method for measuring similar outcomes? __yes __no

How effective was this method? __not at all __somewhat __effective

In your opinion why was this method EFFECTIVE in measuring the student's achievements?

In your opinion why was this method NOT EFFECTIVE in measuring the student's achievements?

**ATTACH ADDITIONAL SHEETS IF YOU USED MORE MEASUREMENT METHODS**

# General Education Pilot Project

## D. Notes from Pilot Project meeting November 2, 2000

**Frank Chavez (MAT 121)** did a Chapter test (2-3). He distributed the test in different colors, students didn't seem to mind this.
***Advantages***: The class is 2 ½ hours so there were no test-taking problems. The success ratio was the same
***Disadvantages***: Should be a chapter-to-chapter test. It was too much material to cover in one exam.
***Immediate effect:*** Will change to chapter tests in the future.

**Letty David (ENG 102)** brought several examples of assessment.

1) To demonstrate understanding of poetic devices, Letty placed a transparency copy of a painting on the overhead projector. Students then brainstormed inspirations. The next class their assignment was to bring back a poem. Followed up this activity immediately with the lecture on poetic design.
2) Two poems and short story activity. She integrated Jean Rukkila's idea of using art supplies to have the students make a "drawing" to show the themes. All but two students participated, and those two later demonstrated their ability in writing.

**Stephen Franklin (GEO 131)** uses an in-class worksheet that is set up like a grid to give students an idea of how things fit together in the "whole picture." This helps students to conceptualize the independent ideas/topics presented. This could work in other classes, such as Psychology, History, etc. It also helps combine 3 chapters of information.

To apply the information, the students were asked to put together a "proposal" as if they were going to solve a problem for a customer.

Multiple choice/essay quizzes are also given (total of 4 quizzes). These tools were developed last spring and seem to be working well.

Stephen has also taught with the Smartboard, and these seem to be going well.

**Gerald Bacon (ANT 110)** To demonstrate ability in critical thinking, Gerald's archeology class is asked to evaluate an "assemblage" after a field trip to the Elden Dig. At the next class, Gerald places a collection of items into an area of the classroom, set up to look like a dig. From that the students are asked to produce "field notes" just as if they were describing a real dig. This helped students demonstrate their ability and knowledge of the material. Other classes could use this activity and write narratives.

**Marty Lara (HUM 242)** shared a method for assessing outcomes that he had "never evaluated in this way before." Students present an oral report and they are assessed via observation. Students were offered a choice as to what interested them about certain topics, therefore making the experience more pleasant.

**Michael Casey (ACC 101)**

1) Informed students ahead of time, which turned out to be a little of a disadvantage because they were so worried about performing well on the assessment that they forfeited their preparation for the next subject.
2) Used multiple methods to assess the same outcome at about the same time in the semester (group activity, teacher observation of students on task, and a written exam)
3) Has used this method now for three semester and gets better at it each time.

# General Education Pilot Project

## E. Results from Tool Survey
## Fall 2000

# *Assessment of General Education Pilot Project Tool Survey Results for Fall 2001*

| *Outcome Category* | *Effective-ness* | *Process Time* | *Method Description* | *Course Number* | *Comments* |
|---|---|---|---|---|---|
| **Aesthetic Awareness** | | | | | |
| | Effective | Appropriate | Oral -discussion | ANT 110 | Utilizing the terms in lecture/seminar. Hands-on objectives. Used film and readings. |
| **Communicate concepts** | | | | | |
| | Effective | Appropriate | Group activity - Computer project module | CIS 120 | Students have questions, can be answered as they run into problems |
| | Effective | Appropriate | Oral - evaluation | PHI 101 | Oral presentations, critical evaluations |
| | Effective | Appropriate | Test - crirerion reference | ECN 204 | Highly recommend. Students enjoyed assignment which was to synthesis an academic journal article and related how they would benefit from that information. Students said it was difficult to read some of the math formulas. |
| | Effective | Appropriate | Written - focus paper | ECN 204 | Video contained much of the terminology learned that would have been otherwise Greek to the students and they knew enough to engage in a discussion about how they felt regarding the proposed debate. Video from CSPAN tax debate |
| | Effective | Very little | Group activity | ENG 102 | Communication skills |
| | Effective | Very little | Group activity | ENG 102 | Communications skills, Brainstorm |
| | Effective | Very little | Presentation | ENG 102 | Evaluation. Done during presentations, audience learned also. |
| | Effective | Very little | Presentation | ENG 102 | Communications skills |
| | Effective | Very little | Test - crirerion reference | ECN 204 | Recommended. Students were able to convey their interpretation about concept by drawing conclusions about what they see around them. |
| **Cultural awareness** | | | | | |
| | Effective | A lot | Test - crirerion reference | PHI 101 | Students demonstrate their objective knowledge of ancient philosophy. Spend a lot of time on ancient topics |
| | Effective | A lot | Test - crirerion reference | PHI 101 | 2nd test shows the students continued progress. Critically thinking about philosophers |
| | Effective | Very little | Test - crirerion reference | PHI 101 | Challenge for many students. |
| | Somewhat | Appropriate | Written - Journal | PHI 101 | Writing on a weekly basics, students can explore their responses to the reading |
| **Problem solving** | | | | | |
| | Effective | Appropriate | Group activity | MAT 121 | Worked in groups, prepared to present the solutions. |

*Created by Paul Holbrook* *Revised 03-May-01*

# *Assessment of General Education Pilot Project*
# *Tool Survey Results for Fall 2001*

| *Outcome Category* | *Effective-ness* | *Process Time* | *Method Description* | *Course Number* | *Comments* |
|---|---|---|---|---|---|
| | Effective | Appropriate | Group activity - Computer project module | CIS 120 | Can answer questions while they run into problems as a group. |
| | Effective | Appropriate | In-class activity | GEO 131 | Lab solving apply concepts and theories in precise and measurable objectives |
| | Effective | Appropriate | Oral - discussion | ANT 110 | Utilizing the terms in lecture/seminar. Hands-on objectives. Used film and readings. |
| | Effective | Appropriate | Research | GEO 131 | Apply lecture concepts in group activity. GIS exercise |
| | Effective | Appropriate | research - Field trip | ANT 110 | Develop questions, evidence presented or not. |
| | Effective | Appropriate | research - Field trip | ANT 110 | Develop questions of their own. Challenge an old paradigm. |
| | Effective | Appropriate | Test - crirerion reference | GEO 131 | A base level consistent tool, to asses student comprehension of material three times during the length of the semester |
| | Effective | Appropriate | Test - crirerion reference | MAT 121 | Problem solving good for math students. Test mimicked material. |
| | Effective | Appropriate | Test - crirerion reference | MAT 121 | Problem solving questions very good for math students. |
| | Effective | Very little | observation | ECN 205 | Excellent activity for students to gain applicable knowledge about concepts. Had groups develop demand schedules from personal traits and then graph the data points as a market and determine what price they would pay. |
| | Not at all | Appropriate | Group activity | MAT 121 | Material builds upon itself. Problem solving |
| | Not at all | Appropriate | Test - crirerion reference | MAT 121 | The material builds and problem solving questions are good for math students. |
| **Quantitative evaluation** | | | | | |
| | Effective | Appropriate | Debate | GEO 131 | Awareness about student material was increased. Ability to communicate, analyze and synthesize information. |
| | Effective | Appropriate | Oral - discussion | GEO 131 | Related theories and concepts of the world's climate. Used climatic control matrix worksheet |
| | Effective | Appropriate | Written proposal and presentation | GEO 131 | Written assignments allowed students to demonstrate their ability to recognize socio-environmental |
| | Effective | Very little | Research - Field trips | GEO 131 | Students able to see, investigate and describe classroom concepts as in the real world. |
| **Writing composition** | | | | | |

# *Assessment of General Education Pilot Project*
# *Tool Survey Results for Fall 2001*

| *Outcome Category* | *Effective-ness* | *Process Time* | *Method Description* | *Course Number* | *Comments* |
|---|---|---|---|---|---|
| | Effective | A lot | Test - crirerion reference | ENG 101 | Recommended but time intensive. Provided plenty of information about the student's capability. Peer and instructor conferencing should fall on different days A more reasonable word count needed. Used in-class activity to generate ideas and organization process. |
| | Effective | A lot | Test - crirerion reference | ENG 101 | Recommended but time intensive. Provided plenty of information about the student's capability. Peer and instructor conferencing should fall on different days A more reasonable word count needed. Used in-class activity to generate ideas and organization process. |
| | Effective | A lot | Test - crirerion reference | ENG 101 | Recommended but time intensive. Provided plenty of information about the student's capability. Peer and instructor conferencing should fall on different days A more reasonable word count needed. Used in-class activity to generate ideas and organization process. |
| | Effective | A lot | Written - activity | PHI 101 | Concepts of human nature as a response to a film. A thesis statement, well-developed argument. |
| | Effective | Appropriate | Peer review | ENG 102 | Reinforce what students learned. |
| | Effective | Appropriate | Writing- activity | ENG 102 | Developed writing skills for higher college courses. |
| | Effective | Appropriate | Written - activity | ENG 102 | Evaluation guidelines. Did a writing workshop as a preface to the assignment. |
| | Effective | Appropriate | Written - activity | PHI 101 | Students think about Buddhism as they develop thesis statements. |
| | Somewhat | Appropriate | Journal - class | PHI 101 | Weekly writing basis, journal writing |
| | Somewhat | Appropriate | Test - crirerion reference | ENG 101 | Complex assignment not recommended |

# *Assessment of General Education Pilot Project*
# *Tool Survey Results for Fall 2001*

| *Method Description* | *Effectiveness* | *Process Time* | *Course Number* | *Outcome Category* | *Comments* |
|---|---|---|---|---|---|
| Debate | Effective | Appropriate | GEO 131 | Quantitative evaluation | Awareness about student material was increased. Ability to communicate, analyze and synthesize information. |
| Group activity | Effective | Very little | ENG 102 | Communicate concepts | Communications skills, Brainstorm |
| Group activity | Effective | Appropriate | MAT 121 | Problem solving | Worked in groups, prepared to present the solutions. |
| Group activity | Effective | Very little | ENG 102 | Communicate concepts | Communication skills |
| Group activity | Not at all | Appropriate | MAT 121 | Problem solving | Material builds upon itself. Problem solving |
| Group activity - Computer project module | Effective | Appropriate | CIS 120 | Problem solving | Can answer questions while they run into problems as a group. |
| Group activity - Computer project module | Effective | Appropriate | CIS 120 | Communicate concepts | Students have questions, can be answered as they run into problems |
| In-class activity | Effective | Appropriate | GEO 131 | Problem solving | Lab solving apply concepts and theories in precise and measurable objectives |
| Journal - class | Somewhat | Appropriate | PHI 101 | Writing composition | Weekly writing basis, journal writing |
| observation | Effective | Very little | ECN 205 | Problem solving | Excellent activity for students to gain applicable knowledge about concepts. Had groups develop demand schedules from personal traits and then graph the data points as a market and determine what price they would pay. |
| Oral - discussion | Effective | Appropriate | ANT 110 | Problem solving | Utilizing the terms in lecture/seminar. Hands-on objectives. Used film and readings. |

***Created by Paul Holbrook*** ***Revised 03-May-01***

# *Assessment of General Education Pilot Project*
# *Tool Survey Results for Fall 2001*

| *Method Description* | *Effectiveness* | *Process Time* | *Course Number* | *Outcome Category* | *Comments* |
|---|---|---|---|---|---|
| Oral - discussion | Effective | Appropriate | GEO 131 | Quantitative evaluation | Related theories and concepts of the world's climate. Used climatic control matrix worksheet |
| Oral - evaluation | Effective | Appropriate | PHI 101 | Communicate concepts | Oral presentations, critical evaluations |
| Oral -discussion | Effective | Appropriate | ANT 110 | Aesthetic Awareness | Utilizing the terms in lecture/seminar. Hands-on objectives. Used film and readings. |
| Peer review | Effective | Appropriate | ENG 102 | Writing composition | Reinforce what students learned. |
| Presentation | Effective | Very little | ENG 102 | Communicate concepts | Evaluation. Done during presentations, audience learned also. |
| Presentation | Effective | Very little | ENG 102 | Communicate concepts | Communications skills |
| Research | Effective | Appropriate | GEO 131 | Problem solving | Apply lecture concepts in group activity. GIS exercise |
| research - Field trip | Effective | Appropriate | ANT 110 | Problem solving | Develop questions of their own. Challenge an old paradigm. |
| research - Field trip | Effective | Appropriate | ANT 110 | Problem solving | Develop questions, evidence presented or not. |
| Research - Field trips | Effective | Very little | GEO 131 | Quantitative evaluation | Students able to see, investigate and describe classroom concepts as in the real world. |
| Test - crirerion reference | Effective | Appropriate | ECN 204 | Communicate concepts | Highly recommend. Students enjoyed assignment which was to synthesis an academic journal article and related how they would benefit from that information. Students said it was difficult to read some of the math formulas. |

***Created by Paul Holbrook*** ***Revised 03-May-01***

# *Assessment of General Education Pilot Project*
# *Tool Survey Results for Fall 2001*

| *Method Description* | *Effectiveness* | *Process Time* | *Course Number* | *Outcome Category* | *Comments* |
|---|---|---|---|---|---|
| Test - crirerion reference | Effective | A lot | ENG 101 | Writing composition | Recommended but time intensive. Provided plenty of information about the student's capability. Peer and instructor conferencing should fall on different days A more reasonable word count needed. Used in-class activity to generate ideas and organization process. |
| Test - crirerion reference | Effective | A lot | PHI 101 | Cultural awareness | 2nd test shows the students continued progress. Critically thinking about philosophers |
| Test - crirerion reference | Effective | A lot | ENG 101 | Writing composition | Recommended but time intensive. Provided plenty of information about the student's capability. Peer and instructor conferencing should fall on different days A more reasonable word count needed. Used in-class activity to generate ideas and organization process. |
| Test - crirerion reference | Effective | A lot | PHI 101 | Cultural awareness | Students demonstrate their objective knowledge of ancient philosophy. Spend a lot of time on ancient topics |
| Test - crirerion reference | Effective | Very little | PHI 101 | Cultural awareness | Challenge for many students. |
| Test - crirerion reference | Effective | Appropriate | MAT 121 | Problem solving | Problem solving good for math students. Test mimicked material. |
| Test - crirerion reference | Effective | Very little | ECN 204 | Communicate concepts | Recommended. Students were able to convey their interpretation about concept by drawing conclusions about what they see around them. |
| Test - crirerion reference | Effective | Appropriate | GEO 131 | Problem solving | A base level consistent tool, to asses student comprehension of material three times during the length of the semester |
| Test - crirerion reference | Effective | A lot | ENG 101 | Writing composition | Recommended but time intensive. Provided plenty of information about the student's capability. Peer and instructor conferencing should fall on different days A more reasonable word count needed. Used in-class activity to generate ideas and organization process. |
| Test - crirerion reference | Effective | Appropriate | MAT 121 | Problem solving | Problem solving questions very good for math students. |

***Created by Paul Holbrook*** ***Revised 03-May-01***

# *Assessment of General Education Pilot Project*
# *Tool Survey Results for Fall 2001*

| *Method Description* | *Effectiveness* | *Process Time* | *Course Number* | *Outcome Category* | *Comments* |
|---|---|---|---|---|---|
| Test - crirerion reference | Not at all | Appropriate | MAT 121 | Problem solving | The material builds and problem solving questions are good for math students. |
| Test - crirerion reference | Somewhat | Appropriate | ENG 101 | Writing composition | Complex assignment not recommended |
| Writing- activity | Effective | Appropriate | ENG 102 | Writing composition | Developed writing skills for higher college courses. |
| Written - activity | Effective | Appropriate | ENG 102 | Writing composition | Evaluation guidelines. Did a writing workshop as a preface to the assignment. |
| Written - activity | Effective | Appropriate | PHI 101 | Writing composition | Students think about Buddhism as they develop thesis statements. |
| Written - activity | Effective | A lot | PHI 101 | Writing composition | Concepts of human nature as a response to a film. A thesis statement, well-developed argument. |
| Written - focus paper | Effective | Appropriate | ECN 204 | Communicate concepts | Video contained much of the terminology learned that would have been otherwise Greek to the students and they knew enough to engage in a discussion about how they felt regarding the proposed debate. Video from CSPAN tax debate |
| Written - Journal | Somewhat | Appropriate | PHI 101 | Cultural awareness | Writing on a weekly basics, students can explore their responses to the reading |
| Written proposal and presentation | Effective | Appropriate | GEO 131 | Quantitative evaluation | Written assignments allowed students to demonstrate their ability to recognize socio-environmental |

*Created by Paul Holbrook*

*Revised 03-May-01*

# Teaching and Learning Conference

## F. Brochure and Presentation Schedule

# 1st Annual Teaching & Learning Conference

## Presentation Schedule

**FLAGSTAFF CAMPUS**

Coconino Community College

10 YEARS 1991-2001

## 9:00 a.m. to 10:30 a.m. — TUESDAY, AUGUST 22, 2000

### Enhancing Accessibility in the Classroom – Rm 7
*Presenter: Nancy Elliott, Coordinator, Disability Resources, CCC & Karen Salt, Educator, CCC*
Every educator wrestles with the challenges faced in making sure that every student in the classroom has an optimum learning experience. This workshop will focus on methods for assuring that happens!

### Using WebCT – Rm 8a
*Presenter: Alane Matthews, Instructional Technology Specialist, CCC*
Learn to use WebCT to enhance your curriculum or to teach online courses. In this hands-on workshop we will explore WebCT from a student's perspective and then create a short online or web enhanced course. We will explore WebCT features such as e-mail, electronic chats, online syllabi, and assessment tools. Enrollment limited to 20 participants.

### The Whole Brain Market – Mind Mapping – Rm 22
*Presenters: Dave Rudakewich, SBS Instructor, CCC and Sandra Dihlman, Adjunct SBS faculty, CCC*
Discover the process and results of mind mapping and its impact on learning.

### The $100,000 Question: How does Copyright affect you? – Rm 21
*Presenter: Marcia Ostrowski, Program Coordinator, Informational Resources, CCC*
Faculty and staff alike can benefit from the important information provided. Learn about Copyright, how it affects your teaching and workplace, and where to find more answers.

## 10:45 a.m. to 12:15 p.m. — TUESDAY, AUGUST 22, 2000

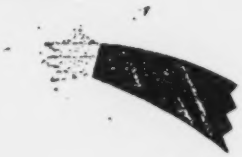
### Panel Discussions – Rm 3
*Facilitators: Michelle Metcalf and Steve Franklin, Adjunct Instructors, CCC*
**10:45 Retention Strategies**
**11:30 Surviving as an Adjunct Faculty at a Community College**
Participate in the discussion and share your ideas for student and faculty retention!

### Critical Thinking & Community Building in the College Classroom – Rm 7
*Presenters: Ruth Foster, Area Coordinator, Developmental English, CCC, and Stephany Brown, Adjunct English Faculty, CCC*
This dual topic workshop will have something for everybody, staff or faculty alike. Find out how to start off on the right foot and promote critical thinking skills right where you are!

### The Power of PowerPoint – Rm 8a
*Presenter: Alane Matthews, Instructional Technology Specialist, CCC*
Learn to use the PowerPoint to create multimedia presentations, classroom handouts and overhead transparencies. This course is designed for beginners and enrollment is limited to 20 participants.

### Training the Adult Learner for the InfoTech Workplace – Rm 22
*Presenter: Dr. Pattie Odgers, CIS Instructor, CCC*
Terms like virtual workers, and distance education are reshaping the nature of work in America and redefining how educators should be preparing the information technology worker for the new millennium workplace. The results of new research on trends, challenges, and delivery modalities from the presenter's newest textbook, *Administrative Office Management* will be presented.

### Learning Outcomes, What are they? And how can I measure them? – Rm 21
*Presenter: Barbara Eickmeyer, Assessment Project Leader, CCC*
Find out about learning outcomes and ways to improve how to guide your students to their final destination, success in your class! Ideas for assessing students will also be presented.



**12:30 to 1:15 p.m.**
**Round-table Discussions**
**Lunch provided by the CCC Foundation – Rm 22**
Topics will be listed at tables for general discussion.
PLEASE RSVP to Lisa Chastain at (520) 527-1222 or (800) 350-7122 ext. 353

## 1:30 a.m. to 3:00 p.m. — TUESDAY, AUGUST 22, 2000

### It's Not How Smart You Are, But How You Are Smart! * – Rm 21
*Presenters: Jim Rhodes, Social & Behavioral Sciences Area Coordinator, CCC and Monica Baker, Occupational & Vocational Division Chair, CCC*
Respecting differences by understanding that students learn in many ways. In this workshop, identify your own learning style and apply learning styles theory in the development of your course to meet the needs of the variety of learners that enter your classroom.
*will be repeated on Wednesday, Aug 23.

### How to write a memo people will read! – Rm 7: Campus communication for the 21st Century
*Presenter: Jerry Baker, Interim VP Administrative Affairs, CCC*
Learn how to use effective methods for written communication in the workplace. Participants will have practice opportunities and immediate feedback on-the-spot!

### Using the SmartBoard* – Rm 22
*Presenter: David Rudakewich, CCC,*
This unique, interactive "white board" computer is one of the recent additions to our college classroom. Come observe how it is used and find out how you might be able to use it in your class.
*will be repeated on Wednesday, Aug 23.

### Teaching On line – A Panel Discussion – Rm 8a
*Facilitators: Alan Peterson, Fine Arts Area Coordinator, CCC, Dr. Ron McFarland, Director for Distance Learning, CCC and Dr. Gerald Hughes, Professor of Sociology & Social Work, NAU*
As the learner of the 21st Century changes, so must delivery methods for instruction. Questions will be answered on how faculty can prepare their courses for distance delivery.

### Making a Rubric – Rm 3: How to measure what your students are learning
*Presenter: Barbara Eickmeyer, Assessment Project Leader, CCC*
Participants in this hands-on workshop will learn how to write a holistic measurement tool for their subject. Whether you teach art or zoology, this workshop will help you focus on telling your students what to expect and how they will be graded!



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**1:00 p.m. to 2:30 p.m.** — **WEDNESDAY, AUGUST 23, 2000**

**It's Not How Smart You Are, But How You Are Smart! (Repeat) – Rm 21**
*Presenters: Jim Rhodes, Social & Behavioral Sciences Area Coordinator, CCC and Monica Baker, Occupational & Vocational Division Chair, CCC*
Respecting differences by understanding that students learn in many ways. In this workshop, identify your own learning style and apply learning styles theory in the development of your course to meet the needs of the variety of learners that enter your classroom.

**The ESL Student, What you need to know – Rm 7**
*Presenter: Holly Franquet, Adjunct Spanish Faculty, CCC*
Find out the challenges faced by a student whose first language is not English. How can educators help these learners to overcome the hurdles in order to gain success!

**Deep Learning: The Paradigm Shift in Higher Education – Rm 3**
*Presenter: Mary Feiler, Learning Specialist, CCC*
Do teachers teach more when they preach less? In this collaborative session, you'll find out why and how educators are integrating active learning in their classrooms. Specific strategies will be shared and demonstrated by guest speakers and the audience.

**Using the SmartBoard (Repeat) – Rm 22**
*Presenter: David Rudakewich, CCC*
This unique, interactive "white board" computer is one of the recent additions to our college classroom. Come observe how it is used and find out how you might be able to use it in your class.

**Write a Syllabus in less than an hour! – Rm 8a**
*Facilitator: Kate Kozak, Interim Arts & Sciences Division Chair, CCC*
Here's your chance to write a hassle-free syllabus that your students will read and USE! Other than having to make copies, you'll be ready to go after this workshop! Materials will be provided. Come early, seating is limited to 25!

**2:45 p.m. to 4:15 p.m.** — **WEDNESDAY, AUGUST 23, 2000**

**How to propose a New Course at CCC – Rm 3**
*Presenter: Maxie Inigo, Curriculum Committee Chair, CCC*
Some of the best ideas for courses never make it to the curriculum committee for lack of information! Learn how to propose a new course, from inception to implementation!

**How to write a Test (or two!) – Rm 7**
*Presenter: Barbara Eickmeyer, Assessment Project Leader, CCC*
One of the hardest things to do is write a test that actually measures what students are learning, while providing a learning experience at the same time. Find out different methods for writing a good test that will reap results!

**True Colors – Rm 21**
*Presenter: Frannie Hill, NAU*
Knowing your personality "colors" will help in your daily communication with people. This unique workshop will enhance your sensitivity to workplace and classroom interaction.

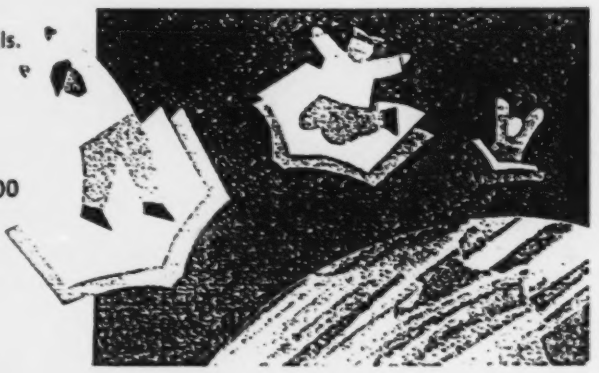
**Popular Repeat Sessions – Rm 8a & 22**
To be determined by participant input.

**4:45 p.m. to 5:45 p.m.** — **WEDNESDAY, AUGUST 23, 2000**

**Vocational / Occupational Area Faculty Meetings – Rooms TBA**

**Arts & Sciences Area Faculty Meetings – Rooms TBA**

**Contact your area coordinator for details.**



**6:00 p.m. to 8:00 p.m.** — **WEDNESDAY, AUGUST 23, 2000**

6:00 p.m.
Convocation Dinner at Coconino High School
2801 N. Izabel Street.
All faculty and staff are welcome.

Convocation Address 7:00 p.m.
*Guest speaker: Dr. Thomas S. Jordan, President CCC*
President Jordan will address faculty and staff on the college's vision for the upcoming academic year.

**Seating limited, RSVP to Lisa Chastain at (520) 527-1222 or (800) 350-7122 ext. 353.**

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# 1st Annual Teaching & Learning Conference

## FLAGSTAFF CAMPUS

## SCHEDULE AT A GLANCE

| Tues, August 22 | Rm 3 | Rm 7 | Rm 8a | Rm 21 | Rm 22 |
|---|---|---|---|---|---|
| 9:00 -10:30 | Check in & Registration room | Enhancing Accessibility in the class-room *Nancy Elliott & Karen Salt* | Using Web CT *Alane Matthews* | The $100,000 Question, How does copyright affect you? *Marcia Ostrowski* | The Whole Brain Market – Mind mapping *Dave Rudakewich & Sandra Dihlman* |
| 10:45 -12:15 | 10:45 Retention Strategies & 11:30 Surviving as an Adjunct Faculty at CCC Panel Discussion *Michelle Metcalf & Steve Franklin* | Critical Thinking & Community Building in the classroom *Ruth Foster & Stephany Brown* | The Power of PowerPoint *Alane Matthews* | Learning Outcomes – What are they and how can I measure them? *Barb Eickmeyer* | Training the Adult Learner for the InfoTech Workplace *Dr. Pattie Odgers* *ends at 12:00 |
| 12:30 -1:15 | Roundtable Discussions- Rm 22<br>Lunch provided by the CCC Foundation<br>Topics will be listed at each table for general discussion.<br>PLEASE RSVP to Lisa Chastain at (520) 527-1222 or (800) 350-7122 ext. 353 | | | | |
| 1:30 -3:00 | Making a Rubric – How to measure what your students are learning (limited to 24) *Barb Eickmeyer* | How to write a memo that people will read! Campus Communication *Jerry Baker* | Teaching Online – A panel discussion *Alan Peterson, Dr. Ron McFarland & Dr. Gerald Hughes* | Learning Styles & Multiple Intelligences (limited to 30) *Jim Rhodes & Monica Baker* | Using the SmartBoard (limited to 25) *Dave Rudakewich* |
| **Wed, August 23** | **Rm 3** | **Rm 7** | **Rm 8a** | **Rm 21** | **Rm 22** |
| 1:00 -2:30 | Deep Learning: The Paradigm Shift in Higher Education *Mary Feiler* | The ESL Student – What you need to know *Holly Franquet* | Write a syllabus in less than an hour! *Kate Kozak* | Learning Styles & Multiple Intelligences – (limited to 30) REPEAT *Jim Rhodes & Monica Baker* | Using the SmartBoard – (limited to 25) REPEAT *Dave Rudakewich* |
| 2:45 -4:15 | How to pro-pose a new course at CCC *Maxie Inigo* | How to write a test (or two!) *Barb Eickmeyer* | Popular Repeat session | True Colors *Frannie Hill* | Popular Repeat session |
| 4:45 -5:45 | Area Faculty Meetings – Contact your area coordinator for details. | | | | |
| 6:00 p.m. | Convocation Dinner at Coconino High School Cafeteria, 2801 N. Izabel Street | | | | |
| 7:00 p.m. | Convocation Address – Dr. Thomas S. Jordan | | | | |

**For more information contact Lisa Chastain @ Coconino Community College, (520) 527-1222 or (800) 350-7122 ext 353. Please contact Human Resources ext 268, by August 14th, if you will need an accommodation to participate in any CCC sponsored activity.**

This material may be made available in an alternative format by contacting the Disabilities Resources Office @ (520) 527-1222 or (800) 350-7122 ext 243. TTY/TTD (520) 527-8693. CCC is an Alternative Action/Equal Opportunity institution.

# General Education Student Outcomes

## G. General Education Student Outcomes as approved by College Faculty February, 2001

## GENERAL EDUCATION STUDENT OUTCOMES
## COCONINO COMMUNITY COLLEGE

### COMMUNICATION SKILLS
**Conveying of ideas using one or more methods of expression (written, oral, signed)**

1. Present ideas developed from diverse sources and points of view with consideration of target audience
2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation
3. Participate in and contribute to collaborative groups
4. Construct logical, coherent, well-supported arguments
5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world
6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange.

### THINKING SKILLS
**Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.**

1. Use appropriate method of inquiry to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s)
2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations
3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions
4. Recognize strengths and weaknesses in arguments
5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions.
6. Understand the uses of theories and models as applied in an area of study
7. Develop creative thinking skills for application in problem solving
8. Demonstrate a working knowledge of a technological application in an area of study

### DIVERSITY AND GLOBAL PERSPECTIVE
**An understanding and appreciation of diverse cultures, values, beliefs, and historical perspectives.**

1. Recognize the diversity of humanity at the local, regional and global levels
2. Synthesize information about needs, concerns and contributions of different cultures within society
3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values
4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose
5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage
6. Relate and explain the connections between past and present events and/or issues



*Revised 5/4/01 -*

## GENERAL EDUCATION STUDENT OUTCOMES
## COCONINO COMMUNITY COLLEGE

### AESTHETIC PERSPECTIVE

**A better understanding, appreciation, and global application of the arts.**

1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria
2. Reflect on personal responses to aesthetic experiences
3. Incorporate aesthetic reflection into discipline-specific activities

### ETHICAL AND CIVIL VALUES

**A better understanding of oneself and others in order to clarify individual and societal responsibilities, needs, and values**

1. Identify and assess community needs and the responsibility to balance individual and societal needs
2. Display responsibility and integrity in one's choices and actions
3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments
4. Develop an appreciation of education and lifelong learning
5. Understand social values and analyze their implications for the individual, community, society, and world
6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it

# General Education Student Outcomes

## H. March 23, 2001 Work Session Report

**Assessment of General Education**
**Curriculum Revision Day**
**March 23, 2001**

**Participants (21 total):**

Jerry Baker (Division Chair)
Bryan Bates
Lonny Born (Associate Faculty)
Barbara Cress
Mike Devoley (temp full time)
Barbara Eickmeyer
Ruth Foster
Lloyd H. Hammonds (Dean, Page Campus)
Paul Holbrook
Maxie Inigo
Jennifer Jameson (temp full time)
Kate Kozak
Marty Lara
Alan Petersen
Jeff Rhode
Jim Rhodes
Dave Rudakewich
Suzan Simmons (Curriculum Coordinator)
Kirsten Squint
Vennie White
Pete Yanka (Advising rep)

**Purpose of the work session**

The primary purpose of the work session was for faculty to review general education course outlines and fill out a checklist that contained the college's general education student outcomes. The outcomes were written through a collaborative effort of faculty over the last three semesters and finalized in February 2001.

There are 92 courses listed in the college catalog in the general education core. We anticipated that perhaps a third of the outlines would be reviewed at the work session, however this was a generous estimate. The day of the work session, we were very pleased with the energetic response from faculty. Their enthusiasm served at motivation to get the job done and everyone got to work right away.

**At the Work session**

**41** General Education outlines reviewed and/or modified at the work session
**6** Non-General Education outlines modified at the work session

Program level review of the General Education core curriculum took place when we compared the course outlines to the new General Education program outcomes.

For the first time that the General Education program outcomes were "put through their paces" and applied to the curriculum.

At first glance, we discovered that the course level and program level outcomes in General Education are very well meshed!!

**Unanticipated (but welcome!) Results**

Faculty made modifications to course outlines to better reflect what is actually happening in the classroom.

Groups of faculty <u>really</u> discussed their programs in the process of completing the General Education checklist. A spirit of collegiality and collaboration prevailed.

Gaps and errors in the curriculum archives were detected.

**Assessment of General Education**
**Curriculum Revision Day**
**March 23, 2001**

Effective discussion with administrators took place regarding the future of General Education assessment and of student academic achievement in general.

A representative from Advising attended the work session and was able to gain knowledge of how the assessment of basic skills has a direct impact on student outcomes in General Education. Lloyd Hammonds, Dean of the Page Campus, shared a model for "Learner Readiness" that could be useful to our assessment program development.

It worked well for non General Education courses as well. Faculty members worked on non-General Education courses because they had time.

Ruth Foster commented, *Though I didn't work on General Education outlines Friday, the meeting gave me a chance to work with Paul [Holbrook] to complete a project we started months ago - combining ENG 135 with BUS 111 and ENG 136 with BUS 204 and retiring the two English classes. It really helped that you had all the forms there and the personnel to answer our questions. Without it, we would not have gotten around to finishing it this term, and if we had, we would have had to run around getting info and forms. In addition, seeing everyone together gave me a chance to discuss unrelated pressing business, especially with Lloyd.*

**Other comments by participants:**

Marty Lara, *This is one of those "must-be-done" things. I was shocked to discover that some outlines had not been updated in some time.*

Jim Rhodes, *This process allowed us to set aside a time to work on curriculum and discuss our programs. It was good to have it on campus. Perhaps earlier in the semester might be better.*

Vennie White, *It was so helpful in terms of seeing what we needed to do to be sure that what occurs in the classroom is reflected on the course outline and vice-versa. The process led to positive conversation about articulation and transfer of English courses.*

Jeff Rhode, *That was easy!*

Jerry Baker, *Very productive! I was impressed with how much participation there was from the temporary full time faculty. I also became more aware of faculty who demonstrated leadership in curriculum management and assessment.*

**Considerations**

This was an effective activity for general education program level review. We recommend a similar method for assessing programs in other areas.

This type of process should take place on an annual basis in order to ensure that curriculum is current and complete.

The college needs to determine how and where the results of program level assessment should be archived.

# General Education Student Outcomes

## H-1 Curriculum checklist for General Education Student Outcomes

## GENERAL EDUCATION STUDENT OUTCOMES CHECKLIST

Course Outline Checklist for _____
(course prefix and name)

Place a check or X beside each outcome addressed by this course. Then list all appropriate Content numbers (E.4) or Outcome numbers (D.2) from the Course Outline that reflect each marked outcome.

| X | | Content Items | Outcome Items |
|---|---|---|---|
| **A. Communication Skills** - Conveying of ideas using one or more methods of expression (written, oral, signed) | | | |
| | 1. Present ideas developed from diverse sources and points of view with consideration of target audience | | |
| | 2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation | | |
| | 3. Participate in and contribute to collaborative groups | | |
| | 4. Construct logical, coherent, well-supported arguments | | |
| | 5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world | | |
| | 6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange. | | |
| **B. Thinking Skills** – Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning. | | | |
| | 1. Use appropriate method of inquire to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s) | | |
| | 2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations | | |
| | 3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions | | |
| | 4. Recognize strengths and weaknesses in arguments | | |
| | 5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions. | | |
| | 6. Understand the uses of theories and models as applied in an area of study | | |
| | 7. Develop creative thinking skills for application in problem solving | | |
| | 8. Demonstrate a working knowledge of a technological application in an area of study | | |
| **C. Diversity and Global Perspective** - An understanding and appreciation of diverse cultures, values, beliefs, and historical perspectives. | | | |
| | 1. Recognize the diversity of humanity at the local, regional and global levels | | |
| | 2. Synthesize information about needs, concerns and contributions of different cultures within society | | |
| | 3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values | | |
| | 4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose | | |
| | 5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage | | |
| | 6. Relate and explain the connections between past and present events and/or issues | | |
| **D. Aesthetic Perspective** - A better understanding, appreciation, and global application of the arts. | | | |
| | 1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria | | |
| | 2. Reflect on personal responses to aesthetic experiences | | |
| | 3. Incorporate aesthetic reflection into discipline-specific activities | | |
| **E. Ethical and Civil Values** - A better understanding of oneself and others in order to clarify individual and societal responsibilities, needs, and values. | | | |
| | 1. Identify and assess community needs and the responsibility to balance individual and societal needs | | |
| | 2. Display responsibility and integrity in one's choices and actions | | |
| | 3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments | | |
| | 4. Develop an appreciation of education and lifelong learning | | |
| | 5. Understand social values and analyze their implications for the individual, community, society, and world | | |
| | 6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it | | |

# General Education Student Outcomes

## I. Matrix of General Education Core Curriculum and Student Outcomes

# COCONINO COMMUNITY COLLEGE
## GENERAL EDUCATION STUDENT OUTCOMES

| | ENG 101 | ENG 102 | MAT 142 | MAT 151 | MAT 187 | MAT 212 | MAT 220 | MAT 230 | MAT 241 | MAT 262 | ART 100 | ART 201 | ART 202 | ART 221 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMUNICATION SKILLS** | | | | | | | | | | | | | | |
| 1. Present ideas developed from diverse sources and points of view with consideration of target audience. | X | | X | X | X | | | | | | | | | |
| 2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation. | X | X | | | | | | | | | | | | |
| 3. Participate in and contribute to collaborative groups. | X | X | | | | | | | | | | X | | |
| 4. Construct logical, coherent, well-supported arguments. | X | X | X | X | X | X | X | X | X | X | | | | |
| 5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world. | X | X | X | X | X | X | X | X | X | X | X | | X | X |
| 6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange. | | | | | | | | | | | | | | |
| **THINKING SKILLS** | | | | | | | | | | | | | | |
| 1. Use appropriate method of inquiry to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s). | X | X | X | X | X | X | X | X | X | X | | | | |
| 2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations. | | | X | X | X | X | X | X | X | X | | | | |
| 3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions | | | X | X | X | X | X | X | X | X | | | | |
| 4. Recognize strengths and weaknesses in arguments | X | X | X | X | X | | X | X | X | X | | | | |
| 5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions | | | | | | | | | | | | | | |
| 6. Understand the uses of theories and models as applied in the area of study | X | X | X | X | X | X | X | X | X | X | | | | |
| 7. Develop creative thinking skills for application in problem | X | X | X | X | X | X | X | X | X | X | | | | |
| 8. Demonstrate a working knowledge of a technological application in an area of study. | X | X | X | X | X | | X | | X | X | | | | |
| **DIVERSITY AND GLOBAL PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Recognize the diversity of humanity at the local, regional and global levels | X | X | | | | | | | | | | X | X | X |
| 2. Synthesize information about needs, concerns and contributions of different cultures within society | | X | | | | | | | | | | X | X | X |
| 3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values. | | X | | | | | | | | | X | X | X | X |
| 4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose. | | X | | | | | | | | | X | X | X | X |
| 5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage. | | X | | | | | | | | | X | X | X | X |
| 6. Relate and explain the connections between past and present events and/or issues. | | X | X | | | | | | | | X | X | X | X |
| **AESTHETIC PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria. | X | X | | | | | X | X | X | X | X | X | X | X |
| 2. Reflect on personal responses to aesthetic experiences. | | X | | | | | | | | | X | | X | X |
| 3. Incorporate aesthetic reflection into discipline-specific activities. | | X | | | | | X | | | | X | X | X | X |
| **ETHICAL AND CIVIL VALUES** | | | | | | | | | | | | | | |
| 1. Identify and assess community needs and the responsibility to balance individual and societal needs | | | X | | | | | | | | | | | |
| 2. Display responsibility and integrity in one's choices and actions | | X | | | | | | | | | | | | |
| 3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments | | | | | | | | | | | | | | |
| 4. Develop an appreciation of education and lifelong learning | | | X | X | X | X | X | | | | | | | |
| 5. Understand social values and analyze their implications for the individual, community, society, and world. | | X | | | | | | | | | | | | |
| 6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it. | | | | | | | | | | | | | | |

# COCONINO COMMUNITY COLLEGE
## GENERAL EDUCATION STUDENT OUTCOMES

| | ENG 236 | ENG 237 | ENG 238 | ENG 272 | HUM 241 | HUM 242 | MUS 100 | MUS 145 | PHI 101 | PHI 105 | REL 201 | THR 101 | ANT 102 | ANT 110 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMUNICATION SKILLS** | | | | | | | | | | | | | | |
| 1. Present ideas developed from diverse sources and points of view with consideration of target audience. | | | | | | | | | X | X | | | X | X |
| 2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation. | | | | | X | X | | | X | | | | | |
| 3. Participate in and contribute to collaborative groups. | | | | | X | X | | | | | | | | |
| 4. Construct logical, coherent, well-supported arguments. | | | | | X | X | | | X | X | | | X | X |
| 5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world. | | | | | X | X | | | | | | | | |
| 6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange. | | | | | | | | | | | | | | |
| **THINKING SKILLS** | | | | | | | | | | | | | | |
| 1. Use appropriate method of inquiry to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s). | | | | | X | X | | | | X | | | X | X |
| 2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations. | | | | | | | | | | | | | | |
| 3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions | | | | | X | X | | | | | | | X | X |
| 4. Recognize strengths and weaknesses in arguments | | | | | X | X | | | X | | | | X | X |
| 5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions | | | | | X | X | | | X | X | | | X | X |
| 6. Understand the uses of theories and models as applied in the area of study | | | | | X | X | | | X | X | | | X | X |
| 7. Develop creative thinking skills for application in problem | | | | | X | X | | | | X | | | X | X |
| 8. Demonstrate a working knowledge of a technological application in an area of study. | | | | | | | | | | | | | | X |
| **DIVERSITY AND GLOBAL PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Recognize the diversity of humanity at the local, regional and global levels | | | | | X | X | X | X | | | | X | X | X |
| 2. Synthesize information about needs, concerns and contributions of different cultures within society | | | | | X | X | X | X | | | | X | X | X |
| 3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values. | | | | | X | X | X | X | | | | X | X | X |
| 4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose. | | | | | X | X | | X | | | | X | X | X |
| 5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage. | | | | | X | X | X | X | | | | X | X | X |
| 6. Relate and explain the connections between past and present events and/or issues. | | | | | X | X | X | X | X | X | | X | X | X |
| **AESTHETIC PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria. | | | | | X | X | X | X | | | | X | X | X |
| 2. Reflect on personal responses to aesthetic experiences. | | | | | X | X | X | X | | | | X | | |
| 3. Incorporate aesthetic reflection into discipline-specific activities. | | | | | X | X | X | X | | | | X | | |
| **ETHICAL AND CIVIL VALUES** | | | | | | | | | | | | | | |
| 1. Identify and assess community needs and the responsibility to balance individual and societal needs | | | | | | X | | | | X | | | X | |
| 2. Display responsibility and integrity in one's choices and actions | | | | | X | X | | | | | | | X | X |
| 3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments | | | | | X | X | | | X | X | | | X | X |
| 4. Develop an appreciation of education and lifelong learning | | | | | X | X | | | | | | | X | X |
| 5. Understand social values and analyze their implications for the individual, community, society, and world. | | | | | X | X | | | | X | | | X | |
| 6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it. | | | | | X | X | | | | X | | | X | X |

# COCONINO COMMUNITY COLLEGE
## GENERAL EDUCATION STUDENT OUTCOMES

| | ANT 210 | ANT 230 | BUS 203 | BUS 214 | ECN 204 | ECN 205 | GEO 133 | HIS 131 | HIS 132 | HIS 136 | HIS 201 | HIS 202 | HIS 250 | HIS 251 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMUNICATION SKILLS** | | | | | | | | | | | | | | |
| 1. Present ideas developed from diverse sources and points of view with consideration of target audience. | X | X | X | | | | X | X | X | | X | X | | |
| 2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation. | | | | | X | | | X | | | X | X | | |
| 3. Participate in and contribute to collaborative groups. | | | | | X | X | | | | | | | | |
| 4. Construct logical, coherent, well-supported arguments. | X | X | X | X | | | | X | | | X | X | | |
| 5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world. | | | X | X | X | | | | | | X | X | | |
| 6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange. | | | | | | | | | | | | | | |
| **THINKING SKILLS** | | | | | | | | | | | | | | |
| 1. Use appropriate method of inquiry to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s). | X | X | X | X | X | X | X | X | X | X | X | X | | |
| 2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations. | | | | | X | X | | | | | | | | |
| 3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions | X | | | | X | X | X | X | X | X | X | X | | |
| 4. Recognize strengths and weaknesses in arguments | X | X | X | X | | | X | X | X | X | X | X | | |
| 5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions | | | | | | | X | | | | | | | |
| 6. Understand the uses of theories and models as applied in the area of study | X | X | | | X | | X | X | X | X | X | X | | |
| 7. Develop creative thinking skills for application in problem | | X | | | X | X | | X | X | | | X | | |
| 8. Demonstrate a working knowledge of a technological application in an area of study. | | | | | | | | | | | X | | | |
| **DIVERSITY AND GLOBAL PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Recognize the diversity of humanity at the local, regional and global levels | X | X | | | | | X | X | X | X | X | X | | |
| 2. Synthesize information about needs, concerns and contributions of different cultures within society | X | X | | | | | X | X | X | X | X | X | | |
| 3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values. | X | X | | X | | | X | X | X | X | X | X | | |
| 4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose. | X | X | | | | | X | X | X | X | X | X | | |
| 5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage. | X | X | | | | | X | X | X | X | X | X | | |
| 6. Relate and explain the connections between past and present events and/or issues. | X | X | | | | | X | X | X | X | X | X | | |
| **AESTHETIC PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria. | X | X | | | | | | | | | | | | |
| 2. Reflect on personal responses to aesthetic experiences. | | | | | | | | | | | | | | |
| 3. Incorporate aesthetic reflection into discipline-specific activities. | | | | | | | | | | | | | | |
| **ETHICAL AND CIVIL VALUES** | | | | | | | | | | | | | | |
| 1. Identify and assess community needs and the responsibility to balance individual and societal needs | X | X | X | X | X | X | X | X | X | X | X | X | | |
| 2. Display responsibility and integrity in one's choices and actions | | X | | X | | | | | | X | | | | |
| 3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments | X | X | X | X | X | | | | X | X | X | X | | |
| 4. Develop an appreciation of education and lifelong learning | X | | | | | | X | X | X | X | X | X | | |
| 5. Understand social values and analyze their implications for the individual, community, society, and world. | X | X | X | X | | | X | X | X | X | X | X | | |
| 6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it. | X | X | | | X | | | X | X | X | X | X | | |

# COCONINO COMMUNITY COLLEGE
## GENERAL EDUCATION STUDENT OUTCOMES

| | POS 101 | POS 110 | POS 120 | POS 220 | POS 233 | PSY 101 | PSY 227 | PSY 238 | PSY 240 | PSY 250 | SOC 101 | SOC 132 | SOC 142 | SOC 210 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMUNICATION SKILLS** | | | | | | | | | | | | | | |
| 1. Present ideas developed from diverse sources and points of view with consideration of target audience. | X | X | | X | | X | X | X | X | X | X | X | X | X |
| 2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation. | X | X | | X | | | X | | | X | | | | X |
| 3. Participate in and contribute to collaborative groups. | | | | | | | | | | | | | | |
| 4. Construct logical, coherent, well-supported arguments. | X | X | | X | | | X | X | | X | X | X | X | X |
| 5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world. | X | X | | X | | | X | | | X | | | | X |
| 6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange. | | | | | | | | | | | | | | |
| **THINKING SKILLS** | | | | | | | | | | | | | | |
| 1. Use appropriate method of inquiry to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s). | X | X | X | X | | | X | X | X | X | X | X | X | X |
| 2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations. | | | | | | | | | | | | | | |
| 3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions | | | | | | X | | | X | X | X | X | X | X |
| 4. Recognize strengths and weaknesses in arguments | X | X | X | X | | | X | X | X | X | X | X | X | X |
| 5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions | | X | X | X | | | | | | | X | X | X | |
| 6. Understand the uses of theories and models as applied in the area of study | X | X | X | X | | X | X | | X | X | X | X | X | X |
| 7. Develop creative thinking skills for application in problem | X | X | X | | | | | | | | X | X | X | X |
| 8. Demonstrate a working knowledge of a technological application in an area of study. | | | | | | | | | | | | X | | |
| **DIVERSITY AND GLOBAL PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Recognize the diversity of humanity at the local, regional and global levels | X | | X | X | | X | X | X | X | X | X | X | X | X |
| 2. Synthesize information about needs, concerns and contributions of different cultures within society | X | X | X | X | | | X | X | | | X | X | X | X |
| 3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values. | X | X | X | X | | X | X | X | X | X | X | X | X | X |
| 4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose. | X | X | X | | | X | X | X | X | X | X | X | X | X |
| 5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage. | X | X | X | | | X | | X | X | X | X | X | X | X |
| 6. Relate and explain the connections between past and present events and/or issues. | X | X | X | X | | X | X | X | X | X | X | X | X | X |
| **AESTHETIC PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria. | | | | | | | | X | | X | | | X | |
| 2. Reflect on personal responses to aesthetic experiences. | | | | | | X | X | X | | X | | | | |
| 3. Incorporate aesthetic reflection into discipline-specific activities. | | | | | | X | X | X | | X | | | | |
| **ETHICAL AND CIVIL VALUES** | | | | | | | | | | | | | | |
| 1. Identify and assess community needs and the responsibility to balance individual and societal needs | X | X | X | X | | X | | X | X | X | X | X | X | X |
| 2. Display responsibility and integrity in one's choices and actions | X | X | | | | | | X | X | X | X | | X | |
| 3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments | X | X | X | | | | X | X | X | X | X | X | X | X |
| 4. Develop an appreciation of education and lifelong learning | | | | | | X | | | X | X | X | X | X | X |
| 5. Understand social values and analyze their implications for the individual, community, society, and world. | X | X | X | X | | X | X | X | X | X | X | X | X | X |
| 6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it. | X | X | X | | | X | X | X | X | X | X | X | X | X |

# COCONINO COMMUNITY COLLEGE
## GENERAL EDUCATION STUDENT OUTCOMES

| | ANT 101 | BIO 100 | BIO 105 | BIO 109 | BIO 181 | BIO 182 | BIO 201 | BIO 202 | BIO 205 | BIO 253 | CHM 130 | CHM 151 | CHM 152 | GEO 131 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMUNICATION SKILLS** | | | | | | | | | | | | | | |
| 1. Present ideas developed from diverse sources and points of view with consideration of target audience. | | X | X | | | X | X | X | | X | X | X | X | X |
| 2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation. | | | X | X | X | | X | X | | | X | X | X | |
| 3. Participate in and contribute to collaborative groups. | | | X | X | X | | X | X | X | X | X | X | X | |
| 4. Construct logical, coherent, well-supported arguments. | X | | | X | | | X | X | | X | X | X | X | X |
| 5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world. | | X | X | X | | | X | X | X | | X | X | X | |
| 6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange. | | | | | | | | | | | | | | |
| **THINKING SKILLS** | | | | | | | | | | | | | | |
| 1. Use appropriate method of inquiry to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s). | X | X | X | X | X | X | | | X | X | X | X | X | X |
| 2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations. | | | X | X | X | X | | | | X | X | X | X | |
| 3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions | X | X | X | X | X | | X | X | X | X | X | X | X | X |
| 4. Recognize strengths and weaknesses in arguments | X | | X | | | | X | X | X | X | X | X | X | |
| 5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 6. Understand the uses of theories and models as applied in the area of study | X | | X | X | X | X | X | X | | X | X | X | X | X |
| 7. Develop creative thinking skills for application in problem | X | | X | X | | X | X | X | X | X | X | X | X | |
| 8. Demonstrate a working knowledge of a technological application in an area of study. | X | X | X | X | X | | X | X | X | X | | | X | X |
| **DIVERSITY AND GLOBAL PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Recognize the diversity of humanity at the local, regional and global levels | | | X | X | | X | | | | X | | | | |
| 2. Synthesize information about needs, concerns and contributions of different cultures within society | | | | X | | X | | | | X | | | | |
| 3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values. | | | | X | | | | | | | | | | |
| 4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose. | X | | X | X | | | | | | | | | | X |
| 5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage. | | | X | X | | | | | | | | | | |
| 6. Relate and explain the connections between past and present events and/or issues. | X | | X | X | | X | | | | X | | | | |
| **AESTHETIC PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria. | | | | | | | | | | | | | | |
| 2. Reflect on personal responses to aesthetic experiences. | | | | | | | | | | | | | | |
| 3. Incorporate aesthetic reflection into discipline-specific activities. | | | | | | | | | | | | | | |
| **ETHICAL AND CIVIL VALUES** | | | | | | | | | | | | | | |
| 1. Identify and assess community needs and the responsibility to balance individual and societal needs | | X | X | X | | X | | | | X | | | | |
| 2. Display responsibility and integrity in one's choices and actions | X | X | X | | | | | | | | | | | |
| 3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments | X | X | X | | | | | | | X | | | | |
| 4. Develop an appreciation of education and lifelong learning | X | | X | X | | | | | | X | | | | |
| 5. Understand social values and analyze their implications for the individual, community, society, and world. | | X | X | | | | | | | X | | | | X |
| 6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it. | X | | X | X | | | | | | X | | | | |

# COCONINO COMMUNITY COLLEGE
## GENERAL EDUCATION STUDENT OUTCOMES

| | GLG 101 | GLG 102 | PHY 107 | PHY 111 | PHY 112 | PHY 161 | PHY 180 | PHY 253 | PHY 262 | ASL 101 | ASL 102 | ASL 201 | ASL 202 | CIS 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMUNICATION SKILLS** | | | | | | | | | | | | | | |
| 1. Present ideas developed from diverse sources and points of view with consideration of target audience. | X | | X | X | X | | | X | | X | | | | |
| 2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation. | X | | X | X | X | X | | | X | X | | | | |
| 3. Participate in and contribute to collaborative groups. | | | X | X | X | X | | X | X | X | | | | |
| 4. Construct logical, coherent, well-supported arguments. | X | X | X | X | X | X | | | X | | | | | |
| 5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world. | X | | X | X | X | X | | | X | X | | | | |
| 6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange. | | | | | | | | | | X | | | | |
| **THINKING SKILLS** | | | | | | | | | | | | | | |
| 1. Use appropriate method of inquiry to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s). | X | X | X | X | X | X | X | X | X | | | | | |
| 2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations. | | | X | X | X | X | | X | X | | | | | X |
| 3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions | X | X | X | X | X | X | X | X | X | | | | | X |
| 4. Recognize strengths and weaknesses in arguments | | | X | X | X | X | X | X | X | | | | | |
| 5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions | X | X | X | X | X | X | X | X | X | | | | | |
| 6. Understand the uses of theories and models as applied in the area of study | X | X | X | X | X | X | X | X | X | | | | | |
| 7. Develop creative thinking skills for application in problem | X | | X | X | X | X | | X | X | | | | | |
| 8. Demonstrate a working knowledge of a technological application in an area of study. | X | X | X | X | X | X | | X | X | | | | | X |
| **DIVERSITY AND GLOBAL PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Recognize the diversity of humanity at the local, regional and global levels | | | | | | | | X | | X | | | | |
| 2. Synthesize information about needs, concerns and contributions of different cultures within society | | | | | | | | X | | X | | | | |
| 3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values. | | | | | | | | X | | X | | | | |
| 4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose. | | | X | | | | | X | | X | | | | |
| 5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage. | | | | | | | | X | | X | | | | |
| 6. Relate and explain the connections between past and present events and/or issues. | X | X | X | | X | | | X | | X | | | | X |
| **AESTHETIC PERSPECTIVE** | | | | | | | | | | | | | | |
| 1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria. | | | | | | | | | | | | | | |
| 2. Reflect on personal responses to aesthetic experiences. | | | | | | | | | | | | | | |
| 3. Incorporate aesthetic reflection into discipline-specific activities. | | | | | | | | X | | | | | | |
| **ETHICAL AND CIVIL VALUES** | | | | | | | | | | | | | | |
| 1. Identify and assess community needs and the responsibility to balance individual and societal needs | | | X | | X | | | | | | | | | |
| 2. Display responsibility and integrity in one's choices and actions | | | | | | | | | | | | | | X |
| 3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments | | | | | | | | | | | | | | X |
| 4. Develop an appreciation of education and lifelong learning | | | X | X | X | X | | X | X | | | | | |
| 5. Understand social values and analyze their implications for the individual, community, society, and world. | | | X | | | | | | | X | | | | |
| 6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it. | | | X | X | X | X | | | X | | | | | X |

# COCONINO COMMUNITY COLLEGE
## GENERAL EDUCATION STUDENT OUTCOMES

| | FRE 101 | FRE 102 | GER 101 | GER 102 | MAT 160 | NAV 101 | NAV 102 | SPA 101 | SPA 102 | SPA 201 | SPA 202 | SPC 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **COMMUNICATION SKILLS** | | | | | | | | | | | | |
| 1. Present ideas developed from diverse sources and points of view with consideration of target audience. | | | | | | | | X | X | | | |
| 2. Demonstrate communication process through idea generation, organization, drafting, revision, editing, and presentation. | | | | | | | | X | | | | |
| 3. Participate in and contribute to collaborative groups. | | | | | | | | X | X | | | |
| 4. Construct logical, coherent, well-supported arguments. | | | | | X | | | | X | | | |
| 5. Employ syntax, usage, grammar, punctuation, terminology, and spelling appropriate to academic discipline and the professional world. | | | | | X | | | | X | | | |
| 6. Demonstrate listening / interpretive skills in order to participate in communications and human exchange. | | | | | | | | X | X | | | |
| **THINKING SKILLS** | | | | | | | | | | | | |
| 1. Use appropriate method of inquiry to identify, formulate, and analyze a current or historical problem/question (may include recognizing significant components, collecting and synthesizing information, evaluating and selecting solution(s), applying and defending solution(s). | | | | | X | | | | X | | | |
| 2. Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations. | | | | | X | | | | | | | |
| 3. Interpret graphical representations (such as charts, photos, artifacts) in order to draw appropriate conclusions | | | | | X | | | | | | | |
| 4. Recognize strengths and weaknesses in arguments | | | | | X | | | | | | | |
| 5. Demonstrate observational and experimental skills to use the scientific method to test hypotheses and formulate logical deductions | | | | | X | | | | | | | |
| 6. Understand the uses of theories and models as applied in the area of study | | | | | X | | | | X | | | |
| 7. Develop creative thinking skills for application in problem | | | | | X | | | X | X | | | |
| 8. Demonstrate a working knowledge of a technological application in an area of study. | | | | | X | | | | | | | |
| **DIVERSITY AND GLOBAL PERSPECTIVE** | | | | | | | | | | | | |
| 1. Recognize the diversity of humanity at the local, regional and global levels | | | | | | | | X | X | | | |
| 2. Synthesize information about needs, concerns and contributions of different cultures within society | | | | | | | | X | X | | | |
| 3. Identify the influence of cultural and ethnic backgrounds on individual and group attitudes and values. | | | | | | | | X | X | | | |
| 4. Link cultural perspectives, practices, and interactions with the societal and physical environment from which they arose. | | | | | | | | X | X | | | |
| 5. Explain the importance of cross-cultural influences on physical, cultural and spiritual heritage. | | | | | | | | X | X | | | |
| 6. Relate and explain the connections between past and present events and/or issues. | | | | | | | | X | X | | | |
| **AESTHETIC PERSPECTIVE** | | | | | | | | | | | | |
| 1. Analyze and evaluate literary, visual, or performing arts using discipline-specific approaches and criteria. | | | | | | | | | | | | |
| 2. Reflect on personal responses to aesthetic experiences. | | | | | | | | | | | | |
| 3. Incorporate aesthetic reflection into discipline-specific activities. | | | | | | | | | | | | |
| **ETHICAL AND CIVIL VALUES** | | | | | | | | | | | | |
| 1. Identify and assess community needs and the responsibility to balance individual and societal needs | | | | | | | | | | | | |
| 2. Display responsibility and integrity in one's choices and actions | | | | | | | | | | | | |
| 3. Integrate knowledge in order to establish an ethical position on an issue and defend it with logical arguments | | | | | | | | | | | | |
| 4. Develop an appreciation of education and lifelong learning | | | | | X | | | | | | | |
| 5. Understand social values and analyze their implications for the individual, community, society, and world. | | | | | | | | | | | | |
| 6. Recognize the individual's responsibility to continue the exploration of the changing world and one's role in it. | | | | | | | | | | | | |

# General Education Student Outcomes

## J. Assessment Tools for Consideration

# Assessment Tools for Consideration

Coconino Community College

| Assessment Method / Instrument | Type | Population | What does it measure? | Procedure / How scored? | Statistical Results Available | How easy is it to use? | Cost | Personnel Impact |
|---|---|---|---|---|---|---|---|---|
| College Assessment of Academic Proficiency (CAAP) by ACT | exit exam for 2nd semester sophomores | AA or AAS degree completers | Reading Writing Math Science Critical Thinking | central for all (except English can be locally scored) | statistical comparison of local results with national sample | must be proctored, each test takes about 1.5 hrs. | $330.00 per year plus module fee up to $16.55 | high |
| Evaluation Survey Services (ESS) by ACT | entrance/exit survey | 2-yr completers | attitudes and opinions | central | statistical comparison of local results with national sample | 4-pages, 30 minutes | $13.65 per 25 (plus basic reporting pkg $160 and scoring fees) | medium |
| (ASSET) by ACT | entrance, used as placement | all students | basic skills, plus advanced skills in math | local | local and national comparisons | computerized not timed | | |
| Academic Profile by ETS | exit exam (long 2.5 hrs or short 40 min form) / criterion referenced | completers of gen ed or degrees | college level reading, critical thinking, writing, mathematics in the context of material from humanities, social and natural sciences | central or local | local and national comparisons | | short form $11.25 ea long form $16.75 ea plus software & misc costs of about $100 | high |
| COMPASS (by ACT) | entrance or placement | all students also ESL | reading, writing, mathematics | computerized, scored locally | n/a | n/a | $525 per license | low |

Impact scale:
1= high (FT facilitator with clerical help to meet deadlines)
3= medium (PT facilitator with clerical help to meet deadlines)
5= low (PT assistance)

# Assessment Tools for Consideration

Coconino Community College

| Assessment Method / Instrument | Type | Population | What does it measure? | Procedure / How scored? | Statistical Results Available | How easy is it to use? | Cost | Personnel Impact |
|---|---|---|---|---|---|---|---|---|
| WORK KEYS | entrance / exit | students in occupational degrees | applied math, applied technology, reading, listening, locating information | central or local | local and national comparisons | already in place in Continuing Ed. | site license plus per student cost < $5.00 | medium |
| College Outcome Measures Program (COMP by ACT) | exit exam for 2nd semester sophomores | gen ed complete | Communicating, problem solving, clarifying values, Functioning within Social Institutions, Using Science and Technology, Using the Arts | central or local | local and national comparisons | composite exam 4.5 hrs, objective test 2.5 hrs activity inventory 1.5 writing 90 min speaking 30 min | Composite exam $7,800 plus $9,600 for faculty or ACT rating of open responses | high |
| College Basic Academic Subjects Examination (BASE) | exit exam after core curriculum | gen ed complete | English, mathematics, science, social studies | central | local and national comparisons | 4 subject, short form with essay component | $19.15 per student for scoring and delivery plus institutional summary report approx. $110.00 | high |
| Descriptive Test of Mathematical Skills (DTMS) | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |

Impact scale:
1= high (FT facilitator with clerical help to meet deadlines)
3= medium (PT facilitator with clerical help to meet deadlines)
5= low (PT assistance)

# Assessment Tools / Conclusions

| Method / Instrument | Numbers (all population or sample) | Personnel impact | Validity | Reliability | Easy to use | Cost | Useability of results for improvement | Reporting usefulness | Faculty Input |
|---|---|---|---|---|---|---|---|---|---|
| CAAP | all Gen Ed completers | 1 | 4 | 5 | 3 | 1 | 5 | 5 | does not meet with our Gen Ed Student Outcomes criteria |
| ESS | sample | 1 | 3 | 3 | 3 | 1 | 3 | 5 | TBD |
| ASSET | all new students | 2 | 4 | 4 | 5 | 3 | 4 | 3 | TBD |
| | | | | | | | | | TBD |
| ACADEMIC PROFILE | sample | 3 | 4 | 4 | 3 | 3 | 4 | 4 | TBD |
| COMPASS | all new students | 2 | 4 | 4 | 3 | 3 | 4 | 4 | TBD |
| WORK KEYS | students in specific programs such as business | 4 | 4 | 4 | 4 | 4 | 4 | 4 | already in use at SBDC, could work for some programs |
| COMP | all Gen Ed completers | 2 | 4 | 4 | 3 | 2 | 4 | 3 | TBD |
| COLLEGE BASE | sample population of Gen Ed completers | 2 | 4 | 4 | 3 | 4 | 4 | 4 | does not meet with our Gen Ed Student Outcomes criteria |
| Descriptive Test of Mathematical Skills (DTMS) | TBD | TBD | TBD | TBD | TBD | TBD | TBD | | |
| Capstone Courses | TBD | TBD | TBD | TBD | TBD | TBD | TBD | | |
| | | | | | | | | | |
| | | | | | | | | | |

**Scale:**
1=not good at all
2=not good
3=could be good or bad
4=good
5=very good

# General Education Student Outcomes

## K. Assessment of General Education Report 1999-2000

**A Faculty Report on:**

**ASSESSMENT OF GENERAL EDUCATION AT COCONINO COMMUNITY COLLEGE**

**1999- 2000**

Written by Barbara Eickmeyer

**Contents:**

I Purpose and Overview of the Project
II What we did
III What we learned
IV The Future

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## Purpose and Overview of the Project

In the fall semester of 1999, the Principal Committee for Institutional Effectiveness (PIE) approved the continuation of the General Education Assessment Pilot Project. This project began in 1996, but was put on hold due to personnel constraints. The Vice President for Educational Services authorized a full-time faculty member to lead the 1999-2000 project with the financial support of PIE.

The purpose of the project was twofold: first, to measure student achievement of course outcomes throughout the semester and second, to explore a cost-effective and meaningful method for reporting and documenting student academic achievement at Coconino Community College (CCC). Participants were asked to provide input regarding an "outcomes assessment form" and its usefulness for reporting student achievement.

As the fall study was under way, it became evident that the pilot project should continue and expand into a focused effort to write outcomes for General Education. The spring semester was designed with more specific goals and resulted in a concerted effort towards completion of the pilot project, as well as writing program outcomes for General Education at the college.

The project was met with considerable support from administration, full-time and adjunct faculty. During the two semesters, a total of seven full-time and fourteen associate faculty participated in the project. The three full-time faculty who coordinated the project were allocated a total of thirteen released hours. Adjunct faculty were paid by PIE for their participation, and other full-time faculty who participated received the benefits of satisfaction and experience. Although an invitation was extended through the Dean of the Page Campus, no faculty from Page participated.

## What we did – Fall 1999

The participants agreed to meet on a monthly basis to discuss assessment methods and the challenges they were facing in this project. They were encouraged to suggest modifications to the outcomes assessment form and to explore effective methods for assessing their students.

Participants from different disciplines experienced a wide variety of challenges in determining outcomes assessment activities and measures. Assessment of outcomes became more "automatic" as a result of participation in this study, and teaching methodology was directly improved. Faculty found it difficult and time consuming to isolate and measure certain outcomes in their courses. One of the most important results of the fall semester study was that all who participated agreed that it should continue for at least another semester.

Although the main purpose for the study was to explore methods for measuring course outcomes and focus on process and mechanisms, it is interesting to note the results of that first semester. During the fall 1999 semester, assessment of outcomes was reported in the following Gen Ed courses: BIO 100, CIS 120, ECN 204, ECN 205, HUM 241, MAT 151, PHI 101, SOC 101, and SPA 101. Recognizing the limited validity of these initial results, we were pleased to discover that, of the total students assessed in the fall courses, 81% met the minimum measurement of outcomes (see Attachment A).

**What we did – Spring 2000**

In the spring 2000 semester, we continued the project in a similar manner, however we took a different approach to the process by teaming faculty together with similar courses. For example, math instructors teamed together to measure similar course outcomes at varying levels. The purpose was to explore how course level assessment methodology might be used to measure program level outcomes. Instructors reported that this "teaming" idea worked well for researching assessment methods. Some instructors used the same instruments for measuring similar outcomes (e.g. Accounting and Macroeconomics), while others worked together to create instruments that measured the same outcomes at varying levels in their courses (e.g. reading for Spanish 102 and 201).

During the spring 2000 semester, assessment of outcomes was reported in the following Gen Ed courses: ACC 101, ANT 110, ECN 205, ENG 102, GEO 131(2 sections), HUM 241/242, MAT 121/151, PSY 101 (2 sections), and SPA 102/201 (see Attachment B). Again, we recognize the limited validity of these results, however it was interesting to note that, of the total students assessed in the spring courses, 82% met the minimum measurement of outcomes.

Another direct result of this study was the development of faculty training workshops on assessment. This study made us aware that there was a strong need for faculty to learn how to assess student outcomes effectively, so we set up two training workshops for February, 2000. Twenty-one adjunct faculty participated in these paid training opportunities.

**What we learned**

Perhaps the most important result of this study was that we became acutely aware of the important need to write outcomes for the General Education program at the college as soon as

possible. While Joan Zumwalt had suggested this in the *Assessment of General Education Curriculum (1997)* publication, it was something that the faculty had not prioritized as the next step in assessment of student outcomes. During the process of this study, it became evident that in order for faculty to report student performance on course level outcomes, they would need more global common outcomes that related directly to all general education courses at the college. It wasn't enough, nor was it feasible, to begin reporting our student academic achievement solely on the results from measurement of course level outcomes. We needed to ask ourselves, *"What should the Gen Ed completer 'look like' at the end of our program?"* A proposal was accepted by the Vice President for Educational Services (Academic Affairs) for a three-semester assessment project, from spring 2000 to spring 2001, to write the outcomes for General Education with the faculty.

With a review of the literature, we collected a variety of sample outcome statements from colleges around the country. Then, a group of 15 faculty and 3 administrators met off-campus in a six hour work session to determine characteristics that would best reflect the college's general education program outcomes. They worked carefully to link the outcomes to the college mission, purpose statement, and general education values and criteria. This productive meeting yielded a preliminary foundation of program competencies that a student could anticipate upon completion of our general education program. The group then brought the results back to the entire faculty for further input and suggestions. At the final College Instructional Team (faculty) meeting in April, 2000, the faculty selected representatives to continue this important process during the summer.

This study was effective because of strong administrative support for the proposal and faculty involvement. We also learned that it would take time and effort for the college to have a viable, useful, and effective assessment plan. An assessment program must include a centralized management, faculty participation, financial support and administrative assistance. This project demonstrated that each component is necessary for success.

A final meeting was convened with the Vice President for Educational Services (Academic Affairs) and the faculty coordinators for the assessment project in May, 2000. His recommendations for priority in the 2000-2001 academic year included: finalizing the General Education Outcomes, determining appropriate measurement tools, and writing outcomes for programs other than General Education.

**The Future**

We acknowledge that training and development is a vital ingredient for faculty to have the necessary knowledge for this process. Training and professional development opportunities will be made available to faculty using PIE and Title III grant monies. A collaborative effort between the college president, the director for the Training and Development Center and the assessment

project coordinator has resulted in the college's first annual *Teaching and Learning Conference*. This will be a two-day conference prior to the start of the semester, dedicated to providing professional development opportunities to faculty and staff. There will be several work sessions available on assessment techniques and writing outcomes, as well as other training for improving teaching and learning.

The General Education Assessment Pilot Project will continue through the fall 2000 semester. The study will focus on determining effective measurement tools for course outcomes. Faculty who participated during fall/spring 1999-2001 will be asked to be a part of this final semester project. Once again, there will be three full-time faculty whose semester load will include assessment activities.

By the end of the fall semester, faculty will complete the General Education Outcomes for Coconino Community College. We anticipate a "domino effect" of program outcomes for degrees and certificates will immediately follow in the process. It is reasonable to anticipate that outcomes for all degrees, certificates and General Education will be in place by the end of the 2001 spring semester.

We also anticipate that the spring 2001 semester will be dedicated to exploring assessment instruments for the General Education Outcomes and training faculty in effective assessment of student academic achievement. The most important step in the process will be the implementation of the instruments for use in assessing student achievement of academic outcomes. We are committed to adopting the instrument(s) that will best measure the student outcomes identified in our degrees, certificates and General Education program. These should be ready for initial piloting or implementation in the fall 2001 semester.

At the culmination of the three-semester assessment project, the coordinator will meet with the Vice President for Educational Services (Academic Affairs) to report on the status of the project and make recommendations to keep the momentum of assessment of student academic achievement at the forefront of the institution's priorities. The journey is far from over, but the goal is within reach.

**Participants on the**

**Assessment of General Education**

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**Pilot Project 1999-2000**

**Full-time Faculty**

Barbara Cress
Barbara Eickmeyer
Paul Holbrook
Marty Lara
Michelle Metcalf
Vennie White

**Adjunct Faculty**

Gerald Bacon
Michael Casey
Frank Chavez
Dan Crawley
Letty David
Stephen Franklin
Holly Franquet
Kate Harkins
Dan Lara
Tricia Ornela
Judy Plescia
NormaLee Roudabush
Judy Stiers

**Administrative Staff**

Dan Fishco
Greg Kerr
Stephen Hill

**Writing Outcomes for Gen Ed**

**Full-time Faculty**

Monica Baker
Bryan Bates
Candice Corrigan
Barbara Cress
Barbara Eickmeyer
Ruth Foster
Kate Kozak
Paul Holbrook
Marty Lara
Alan Petersen
Jim Rhodes
Vennie White
Kathy Wigal

**Adjunct Faculty**

Natalie Davenport

**Administrative Staff**

Dan Fishco
Stephen Hill
Nathaniel Nez

**Attachment A**
**Fall 1999 – General Education Assessment Project Results**

| Course / Outcome | Number of students currently enrolled | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **BIO 100** | | | | | |
| Appraise the relationship between humans and their environment | 22 | 22 | 7 | 19 | 86% |
| Participate in laboratory work, utilizing scientific methods and equipment | 23 | 23 | 2, 9 | 17 | 74% |
| Solve problems in and explain processes involved in genetics | 20 | 20 | 12 | 17 | 85% |
| **CIS 120** | | | | | |
| Describe computer hardware, software and information processing and application to business | 20 | 20 | 3, 4, 7 | 14 | 72% |
| Describe current and future uses of computers | 21 | 21 | 3 | 14 | 67% |
| Effectively operate a microcomputer system and various peripheral devices | 21 | 20 | 2 | 20 | 100% |
| Correctly use computer-related vocabulary | 19 | 19 | 5 | 14 | 74% |
| Describe the limitations of computer systems and their applications in various environments | 19 | 19 | 6 | 18 | 95% |
| Discuss the impact of telecommunications and networks to the way computers are used | 20 | 20 | 5 | 16 | 80% |
| Identify issues related to security, ethics, and privacy whan using a computer | 19 | 19 | 8 | 16 | 84% |
| Produce computer-generated projects through the use of word-processing, spreadsheet, database, presentation, e-mail, and web browsing software | 19 | 19 | 9 | 19 | 100% |
| **ECN 204** | | | | | |
| Define economic vocabulary | 15 | 15 | 4, 8, 15 | 13 | 87% |
| Explain and summarize how federal reserve system works | 15 | 15 | 15 | 15 | 100% |
| Complete increasingly difficult writing assignments | 15 | 15 | 4, 8, 15 | 15 | 100% |
| **ECN 205 fast track** | | | | | |
| Define economic vocabulary | 22 | 22 | 3 | 20 | 91% |
| Examine and explain the structure of the American economic system | 22 | 22 | 3 | 11 | 50% |
| Analyze and explain the demand cycle and consumer choice and interpret graphical representation | 22 | 22 | 3 | 18 | 82% |
| Summarize market influences and theories | 22 | 22 | 3 | 18 | 82% |

**Attachment A**
**Fall 1999 – General Education Assessment Project Results**

| Course / Outcome | Number of students currently enrolled | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **HUM 241** | | | | | |
| Develop skills in analyzing and synthesizing information | | 13 | 1, 7, 15 | 0 | 0% |
| Encourage awareness of faulty reasoning | | 9 | 1, 7, 15 | 9 | 100% |
| Foster flexible and creative thinking | | 8 | 1, 7, 15 | 8 | 100% |
| **MAT 151** | | | | | |
| Graph equations and functions using various methods including technology | 24 | 19 | 16 | 15 | 79% |
| Solve linear, quadratic, rational, absolute value, polynomial, and radical equations | 24 | 19 | 16 | 15 | 79% |
| Simplify expressions involving complex numbers | 24 | 19 | 16 | 15 | 79% |
| **PHI 101** | | | | | |
| recognition of major ancient Greek philosophers and their ideas | 41 | 41 | 5 | 41 | 100% |
| a basic understanding of principles of argument, an ability to summarize philosophical argument, and formulate their own argument | 41 | 31 | 12 | 25 | 81% |
| **SOC 101** | | | | | |
| Concepts, Theories, and research methods in Sociology | 30 | 30 | 1 | 5 | 17% |
| Definitions and classifications of individuals and groups | 30 | 19 | 3 | 15 | 79% |
| Concepts and theories of stratification | 23 | 19 | 7 | 14 | 74% |
| Social institutions | 23 | 19 | 10 | 18 | 95% |
| **SPA 101 fast track** | | | | | |
| interpret written Spanish that contains learned vocabulary | 15 | 14 | 3 | 13 | 93% |
| | 12 | 12 | 5 | 12 | 100% |
| derive meaning from written material where context and/or extralinguistic background knowledge are supportive | 15 | 14 | 3 | 11 | 79% |
| | 12 | 12 | 5 | 12 | 100% |
| initiate and respond verbally to simple statements, ask and answer questions, and participate in simple conversations | 13 | 12 | 4 | 12 | 100% |
| | 12 | 12 | 7 | 11 | 92% |
| demonstrate comprehension of words and phrases from simple spoken questions, statements, high frequency commands, and courtesy formulae | 12 | 12 | 7 | 11 | 92% |
| **Totals** | **707** | **689** | | **556** | **81%** |
| Notes: ENG 102 data non quantitative | | | | | |

**Attachment B**

**Spring 2000 – General Education Assessment Project Results**

| Course / Outcome | Assessment Method | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **ACC 101** (NOT IN GEN ED) | | | | | |
| Prepare and explain the Balance Sheet, Income Statement, and Statement of Retained Earnings | Observation | 19 | 4 | 17 | 89% |
| | Problems | 19 | 4 | 17 | 89% |
| | Instructor test | 19 | 4 | 16 | 84% |
| Explain the Accounting Equation and the interaction of its elements | Observation | 19 | 7 | 18 | 95% |
| | Problems | 19 | 7 | 15 | 79% |
| | Instructor test | 19 | 7 | 12 | 63% |
| Calculate and apply the necessary tools and techniques for ratio analysis related to statement analysis | Observation | 19 | 10 | 17 | 89% |
| | Problems | 19 | 10 | 14 | 74% |
| | Instructor test | 19 | 10 | 12 | 63% |
| **ANT 110** | | | | | |
| What is Archaeology | Instructor test | 16 | 3 | 11 | 69% |
| | Instructor test | 17 | 7 | 17 | 100% |
| Develop techniques for analysis of cultural remains | Instructor test | 14 | | 12 | 86% |
| | Instructor test | 7 | | 7 | 100% |
| | Instructor test | 6 | | 6 | 100% |
| | Instructor test | 15 | | 15 | 100% |
| Understand cultural theory as it applies to interpreting prehistoric cultural systems. | Instructor test | 13 | | 10 | 77% |
| **ECN 205** | | | | | |
| Define economic vocabulary | Instructor test | 25 | | 24 | 96% |
| Summarize market influences and theories | Instructor test | 18 | | 16 | 89% |
| | Instructor test | 22 | | 22 | 100% |
| **ENG 102** | | | | | |
| Synthesize ideas from readings with their own ideas and research | Essay | 13 | 5 | 12 | 92% |
| | Essay | 13 | 13 | 12 | 92% |
| Follow the writing process | Essay | 13 | 3 | 13 | 100% |
| | Essay | 12 | 9 | 10 | 83% |
| Research and document sources; integrate source material skillfully | Essay | 13 | 15 | 9 | 69% |
| **GEO 131 Sec 1 & 2** | | | | | |
| Identify, analyze and evaluate the theories and interpretations concerning physical geography and the forces at work therein | Instructor test | 45 | 5 | 33 | 73% |
| | Instructor test | 47 | 10 | 39 | 83% |
| | Instructor test | 47 | 16 | 34 | 72% |

**Attachment B**
**Spring 2000 – General Education Assessment Project Results**

| Course / Outcome | Assessment Method | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **GEO 131 Sec 1 & 2 (continued)** | | | | | |
| Successfully complete laboratory exercise concerning physical geography through the application of the theories and concepts of physical geography and the scientific method | Problems | 47 | 5 | 42 | 89% |
| | Matrix | 47 | 12 | 44 | 94% |
| | Simulation | 47 | 14 | 45 | 96% |
| Apply the theories and concepts of physical geography to local and global issues | Group activity | 47 | 3 | 45 | 96% |
| | Essay | 47 | 13 | 42 | 89% |
| | Debate | 47 | 15 | 42 | 89% |
| **HUM 241** | | | | | |
| Develop skills in analyzing and synthesizing information | Essay | 9 | 8-10 | 8 | 89% |
| | | 10 | 15 | 9 | 90% |
| Interpretation, and evaluation of evidence | Essay | 9 | 8-10 | 8 | 89% |
| | | 10 | 15 | 8 | 80% |
| Successful completion of the writing component | Essay | 14 | 8-10 | 14 | 100% |
| | | 14 | 15 | 14 | 100% |
| **HUM 242** | | | | | |
| Emphasize the gathering, interpretation, and evaluation of evidence | | 11 | 3 | 9 | 82% |
| | | 17 | 8 | 13 | 76% |
| | | 17 | 14 | 14 | 82% |
| Develop skills in analyzing and synthesizing information | | 11 | 3 | 6 | 55% |
| | | 17 | 8 | 12 | 71% |
| | | 17 | 14 | 10 | 59% |
| Successful completion of the writing component | | 17 | 14 | 12 | 71% |
| **MAT 121 / 151** | | | | | |
| Demonstrate graphing linear equations | Problems | 31 | 11 | 18 | 58% |
| Solve systems of equations graphically & quantitatively & check solutions | Problems | 31 | 11 | 16 | 52% |
| | Problems | 35 | 16 | 26 | 74% |
| Simplify / solve rational, and radical expression & equations | Problems | 35 | 16 | 21 | 60% |
| Develop an understanding of logarithmic operations | Problems | 35 | 16 | 23 | 66% |

**Attachment B**
**Spring 2000 – General Education Assessment Project Results**

| Course / Outcome | Assessment Method | Number of students assessed | Period of assessment by semester week | Students who met the requirements | Percentage of students meeting the minimum measurement |
|---|---|---|---|---|---|
| **PSY 101 SEC 3 & 4** | | | | | |
| Concepts, theories, and research methods | Instructor test | 51 | 4 | 29 | 57% |
| | oral presentations | 19 | 8 | 18 | 95% |
| | Essay | 50 | 13 | 47 | 94% |
| Emotions, motivation, memory and learning | Quiz | 51 | 11 | 43 | 84% |
| | oral presentations | 17 | 11 | 16 | 94% |
| | Instructor test | 51 | 12 | 39 | 76% |
| Abnormal personalities and therapies | Quiz | 50 | 15 | 39 | 78% |
| | oral presentations | 15 | 15 | 14 | 93% |
| | Instructor test | 49 | 16 | 30 | 61% |
| **SPA 102** | | | | | |
| Interpret written Spanish from texts that are linguistically non-complex | Pre/Post test | 20 | 1 | 12 | 60% |
| | Instructor test | 19 | 5 | 15 | 79% |
| | Instructor test | 16 | 16 | 16 | 100% |
| Initiate and respond verbally to uncomplicated, basic communicative tasks and social situations | Pre/Post test | 20 | 1 | 14 | 70% |
| | Oral examination | 20 | 3 | 19 | 95% |
| | Pre/Post test | 16 | 15 | 16 | 100% |
| Demonstrate comprehension of sentence-length statements or questions in a limited number of content areas | Pre/Post test | 20 | 1 | 19 | 95% |
| | Instructor test | 17 | 10 | 14 | 82% |
| | Oral examination | 16 | 15 | 14 | 88% |
| **SPA 201** | | | | | |
| Interpret simple connected text | Verbal response | 7 | 8-10 | 7 | 100% |
| | Verbal response | 7 | 8-10 | 6 | 86% |
| | Verbal response | 7 | 16 | 7 | 100% |
| | Verbal response | 7 | 16 | 7 | 100% |
| Demonstrate increased comprehension of conversational discourse on a number of topics | Instructor test | 7 | 16 | 7 | 100% |
| Initiate, sustain and close a general conversation utilizing learned grammatical strategies | Instructor test | 7 | 9 | 6 | 86% |
| | Instructor test | 7 | 16 | 7 | 100% |
| | Instructor test | 7 | 8-10 | 6 | 86% |
| **Totals** | | **1722** | | **1408** | **82%** |